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# CORPORATE OWNERSHIP & CONTROL

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**CORPORATE  
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**КОРПОРАТИВНАЯ  
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## EDITORIAL

*Dear readers!*

The recent issue of the journal *Corporate Ownership and Control* is devoted to some key topics. We constructed this issue of the journal around the fundamental analysis of corporate governance systems in the UK, Germany and the USA. The role of employees as stakeholders is considered thoroughly. Trend toward the participative corporate governance was found as entrenched.

Analysis of corporate governance in the economies in transition is an excellent contribution to the fundamental analysis of the most basic systems of corporate governance. The role of privatization is described. State-owned enterprises face no less competition than other enterprises and the overall level of competition is no lower in countries with more state-owned enterprises. Although privatization might have other benefits, there is little evidence that it will increase competition unless governments take complementary actions such as reducing trade barriers or enforcing competition laws.

Moreover, we explore how the privatization influences such core elements of corporate governance as legal provisions and ownership structure. We focus specifically on how changes in the legal framework shape the ownership and control structure of new and recently privatized companies in the emerging market economy of post-socialist Poland. We argue that governmental actions aimed at stimulating investment and economic development in post-socialist Poland and the emergent model of corporate governance is conditioned both by internal dynamics - such as previous corporate arrangements and the origins of the commercial law - and by external factors - such as EU accession, directives and policies regarding investment obligations and shareholder rights. While change to manager and non-financial domestic outsider ownership is typical for Russia, this is not the case in Slovenia. Instead, change to financial outsiders in the form of Privatization Investment Funds is more frequent. Foreign ownership, which is especially rare in Russia, is quite stable. The ownership diversification to employees and diversified external owners during privatization did not fit well to the low development of institutions. As expected, we observe a subsequent concentration of ownership on managers, external domestic and foreign owners in both countries.

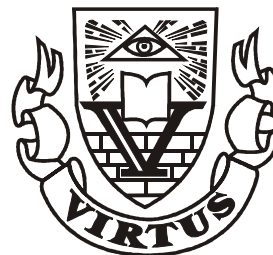
The problem of corporate governance in state owned enterprises is considered with application to China that was chosen by us as a country to research thoroughly. We also examine attempts to place state owned companies on a sounder conceptual footing through changes to their culture brought about by adopting and embedding guidelines and standards, such as the recent *OECD Guidelines on the Corporate Governance of State-owned Enterprises*. Moreover, we argue that Chinese state enterprise reform has been relatively successful in solving the short-term managerial incentive problem through both its formal, explicit incentive mechanism and its informal, implicit incentive mechanism. However, it has failed to solve the long-term managerial incentive problem and the management selection problem.

There are some papers which explore the issue of corporate board and director independence. Regarding to Greece, findings from this research suggest that neither board leadership structure nor CEO dependence/independence showed any significant effects on firm's financial performance. Moreover, we consider that the agency perspective of corporate governance emphasises the monitoring role of the board of directors. We analyzed whether independent directors on the board and audit committee are associated with reduced levels of earnings management. The results support the hypotheses that a higher proportion of independent directors on the board and on the audit committee are associated with reduced levels of earnings management. It also provides empirical evidence on the effectiveness of some of the regulators' recommendations, which may be of value to regulators in preparing and amending corporate governance codes with application to Australia.

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*Pamela Kent, Mark Molesworth*

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*Ghassan Omet*

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and availability of capital and thus, firms' investment decisions. To date, much of the empirical research has been applied on companies listed on advanced stock markets. This literature considered a variety of factors such as company size, profitability, asset tangibility, firm growth prospects and ownership structure as possible determinants of the capital structure choice. This paper examines the finances of Jordanian listed companies and the impact of their ownership structure on the capital structure choice. Based on a panel data methodology (1995-2003), the results indicate that while Jordanian companies are not highly leveraged, their ownership structure does have a significant impact on capital structure.

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*Roman Tomasic, Jenny Jian Rong Fu*

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## BOARD CONFIGURATION AND PERFORMANCE IN GREECE: AN EMPIRICAL INVESTIGATION

*Dimitrios N. Koufopoulos\*, Maria-Elisavet N. Balta\*\**

### Abstract

This study is an attempt to shed light on board configuration-board size, leadership structure, CEO dependence/independence alongside with firm's performance relying on financial ratios, namely ROE, ROCE and profit margin. Data were gathered from annual reports and proxy statement of 316 Greek organisations quoted in the Athens Stock Exchange, shortly after the financial crisis of 1999. This period the Greek Capital market was upgraded to a mature market status. Findings from this research suggest that neither board leadership structure nor CEO dependence/independence showed any significant effects on firm's financial performance.

**Keywords:** corporate board, board size, composition, firm performance

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### Introduction

In the last few years, corporate governance has received a great deal of attention among academics and business practitioners (Keasey, Thompson and Wright, 1999; Lazzari et al, 2001). The term "corporate governance" can be interpreted by different point of views. Some authors, such as Shleifer and Vishny (1997:2), define corporate governance as "the ways in which suppliers of finance to corporations assure themselves of getting a return of investment" emphasizing economic return, security and control. Donaldson (1990:376) defined corporate governance as the "structure whereby managers at the organisation

apex are controlled through the board of directors, its associated structures, executive initiative, and other schemes of monitoring and bonding" thereby narrowing the scope to the Board of Directors and their associated structures. Other authors, such as Kaplan and Norton (2000), analyse corporate governance from the political point of view focused on general shareholder participation, defining corporate governance as the connection between directors, managers, employees, shareholders; customers, creditors and suppliers to the corporation and to one another.

A significant increase in research has been documented in recent years regarding corporate

governance which partly may have been triggered by a series of major corporate scandals; both in the U.S (i.e. Enron, Tyco, and WorldCom) and in Continental Europe (i.e. Parmalat). They have revealed the inefficiency of monitoring the top management, which lead to substantial loss for stakeholders (e.g. Petra, 2005; Rose, 2005; Sussland, 2005; Parker, 2005; Lavelle, 2002).

In Greece, corporate governance has been a topic of increased interest in the boardrooms due to structural backwardness, the crisis of the Athens Stock Exchange and the international pressures toward a more market-based and shareholder-oriented model of governance. During the period 1997–2000, the Greek economy was characterised by its attempt to readjust its macroeconomic indicators and achieve the criteria to become the 12<sup>th</sup> member of the “EURO Zone” in 1999, that is, achieving Economic and Monetary integration in the European Union; an accomplishment that was realised on the 1<sup>st</sup> January 2001. By the end of 2000, the Greek economy had transformed into a “modern” economy with an updated structure and strong dynamism (ASE, 2001). Athens Stock Exchange experienced a six-fold increase and it grew faster than any other capital market in the developed world and it has increased the number of listed companies (approximately 350 companies with combined market capitalisation 10.5 billion euros). However, in the third semester of 1999, the ASE has suffered losses that on the average accounted for almost 70 per cent of its peak value. Since then, the Hellenic Capital Market Commission (HCMC) and Athens Stock Exchange attempt to implement some rules and regulations in order to protect investors, to guarantee the normal operation and liquidity of the capital market and to enhance the efficiency of trading (Tsipouri and Xanthakis, 2004). The first step toward the formation of a comprehensive framework on corporate governance has been the publication of the “Principles of Corporate Governance in Greece (Committee on Corporate Governance in Greece, 1999), which contains the following seven main categories: the rights and obligations of shareholders, the equitable treatment of shareholders, the role of stakeholders in corporate governance, transparency, disclosure of information and auditing, the board of directors, the non-executive members of the board of directors and executive management (Mertzanis, 2001).

Regulatory reforms in USA such as Sarbanes-Oxley Act (2002), in Europe (OECD Principles on Corporate Governance, 2004), and more specifically in the United Kingdom (i.e. Cadbury, 1992; Greenbury, 1995; Hampel, 1998; Turnbull, 1999; Higgs, 2003) and in Greece (Principles of Corporate Governance in Greece, 1999) are pushing companies to re-think issues regarding governance structures alongside firm’s performance. Consumer activists, corporate shareholders but also government regulators have advanced proposals to reform corporate boards, notably their structure and process in order to

demonstrate a sound corporate governance policy and practice.

Boards of directors are viewed as the link between the people who provide capital (the shareholders) and the people who use the capital to create value (Kostyuk, 2005). The board exists primarily in order to hire, fire, monitor, compensate management and vote on important decisions in an effort to maximise the value of shareholder (e.g. Fistenberg and Malkier, 1994; Salmon, 1993; Denis and McConnell, 2003; Becht et. al., 2003). According to Iskander and Chambrou (2000) the board of directors is the centre of the internal system of corporate governance and, in this scope, has the responsibility to assure long-term viability of the firm and to provide oversight of management. Bhojraj and Sengupta (2003) assert that the boards have the fiduciary duty of monitoring management performance and protecting shareholders interests. Other roles of the board is the institutional role, strategy role, disciplinary role, figurehead role, ethical role, auditing role, class hegemony role (e.g., Hung, 1998; Zahra and Pearce, 1989)

The study attempts to explore the relationship of board configuration with organisational performance. Thus, the paper initially discusses issues regarding board size, leadership structure and CEO dependence/independence as well as their performance implications. It proceeds with investigating their relationship based on 316 organizations listed in the Athens Stock Exchange (ASE). Finally, recommendations and suggestions for future research are discussed.

## Literature Review

Within the Corporate Governance literature an issue of great importance concerns with configuring the Board; which means to deal with issues regarding board size, leadership structure and CEO dependence/independence. Board of directors are assumed to influence the strategic direction and performance of the corporations they govern (Beekun, Stedham and Young, 1998). Board structure aims at formulating specific strategies by aligning the interests of management and suppliers of capital. Board structure has been a topic of increased attention in the disciplines of economics (Jensen and Meckling, 1976), finance (Fama, 1980), sociology (Useem, 1984) and strategic management (Boyd, 1995). There have been developed numerous corporate governance theories (agency theory, stewardship theory, resource dependence theory and stakeholder theory), which will be briefly discussed.

Agency theory has been a dominant approach in the economic and finance literature (Fama and Jensen, 1983) and describes the relationship between two parties with conflicting interests: the agent and the principal (Jensen and Meckling, 1976). For agency theorists, the role of the board is to ratify and monitor the decisions of top management team (Fama and

Jensen, 1983). Agency theory is concerned with aligning the interests of owners and managers and it is based on the assumption that there is an inherent conflict between the interests of firm's owners and its managers (Fama and Jensen, 1983; Fama, 1980; Jensen and Meckling, 1976). The agency theory underlines the importance of monitoring and governance function of boards (Pearce and Zahra, 1992; Zahra and Pearce, 1989) and the need for establishment mechanisms in order to protect shareholders from management's conflict of interest (Fama and Jensen, 1983). It finally, suggests that boards should have a majority of outside and independent director and that the position of Chairman and CEO should be separate (Daily and Dalton, 1994a).

In contrast to agency theory, stewardship theory suggests that there is no conflict of interest between managers and owners and a successful organisation requires a structure that allows the coordination of both parts (Donaldson, 1990; Donaldson and Davis, 1991, 1994). Stewardship theorists argue that executives serve both their own but also their shareholders' interests (Lane, Cannella and Lubatkin, 1998). They contend that superior corporate performance is associated with majority of inside directors because, first, they ensure more effective and efficient decision-making and second, they contribute to maximise profits for shareholders (Kiel and Nicholson, 2003).

Resource dependency theory proposes that corporate board is a mechanism for managing external dependencies (Pfeffer and Salancik, 1978), reducing environmental uncertainty (Pfeffer, 1972) and the environmental interdependency (Williamson, 1984). It, also views outside directors as a critical link to the external environment (Pfeffer and Salancik, 1978). This perspective advocates appointing representatives of significant external constituencies as outside board members. This is considered as a strategy for managing organizations' environmental relationships. Outside directors can provide access to valued resources and information (e.g., Bazerman and Schoorman, 1983; Pfeffer and Salancik, 1978; Stearns and Mizruchi, 1993). For instance, outside directors who are also executives of financial institutions may contribute in securing favourable lines for credit (e.g., Stearns and Mizruchi, 1993).

Finally, stakeholder theories encompass all the important consistencies of the firm in its governance mechanisms and stress their fundamental importance. Clarkson (1994) in defining stakeholder theory states that: "Firm is a system of stakeholders operating within the larger system of the host society that provides the necessary legal and market infrastructure for the firm's activities. The purpose of the firm is to create wealth for its stakeholders by converting their stakes into goods and services". Since the stakeholders (i.e. employees, owners, investors, customers, government, community) of the firm provide the essential inputs and infrastructure in order to be

achieved, it follows that they should be included in the government centres that are responsible for the firm's fate. Their inclusion, however, in the corporate governance mechanisms should be limited to the extent that their interests are threatened because they usually lack the managerial knowledge and long-term experience to take strategic decisions.

In this light, the size of the board, its leadership structure and its independence is of great significance. In order to structure our study, we have developed a model -shown in Figure 1-, which seeks to examine organisational characteristics (size, industry, ownership, year of incorporation and the number of the years that the company is listed at the Athens Stock Exchange as well as how board characteristics such as (size, leadership structure, CEO dependence/independence) influence the organisational performance in terms of return on equity (ROE), return on capital employed (ROCE) and profit margin in a study carried out in Greece.

**Figure 1**

*Board Size* is a major element of board structure (Daily and Dalton, 1992) and board reform (Chaganti, Mahajan and Sharma, 1985). Board size can be ranged from very small (5 or 6) to very large (30 plus) (Chaganti, Mahajan, Sharma, 1985). Early studies have found that the average size of the board is between 12 and 14 and remains the same over the past 50 year (e.g., Conference Board, 1962, 1967; Gordon, 1945). As board size increases both expertise and critical resources for the organisation are enhanced (Pfeffer, 1973). Larger boards, also, prevent the CEO from taking actions that might not be in shareholders interests such as golden parachutes contracts (Singh and Harianto, 1989). Finally, larger boards may be associated with higher levels of firm performance (e.g. Alexander, Fennell and Halpern, 1993; Goodstein, Gautam and Boeker, 1994; Mintzberg, 1983). In a study conducted by Chaganti, Mahajan and Sharma (1985), it was found that non-failed firms tended to have larger boards than the failed firms. However, increased board size inhibits the board's ability to initiate strategic actions (Goodstein, Gauten and Boeker, 1994). Large groups are more difficult to coordinate and more likely to develop potential interactions among group members (O'Reilly, Caldwell and Barnett, 1989).

On the contrary, a smaller board has the ability to adopt and exercise a controlling role (Chaganti, Mahajan and Sharma, 1985). Also, smaller group size increases participation and social cohesion (Muth and Donaldson, 1998) that might contribute to organisational performance (Evans and Dion, 1991). Yermack (1996) found that board smallness was associated with higher market evaluations as well as higher returns on assets, sales over assets, and return on sales (ROS). Since, there is not clear empirical evidence, we formulate the following proposition:

*Proposition 1:* Board size is unrelated with the firm's performance in terms of: a) Return on Capital Employed (ROCE), b) Return on Equity (ROE) and c) Profit Margin

*Leadership Structure or CEO Duality:* An important parameter of corporate governance is the existence of CEO duality. CEO duality occurs when the same person holds both the CEO and Chairperson's positions in a corporation (Rechner and Dalton, 1991). The CEO is a full-time position and has responsibility for the day-to-day running of the office as well as setting, and implementing corporate strategy and mainly, the performance of the company. On the contrary, the position of the Chairman is usually a part-time position and the main duties are to ensure the effectiveness of the board and the evaluation of the performance of the executives (Weir and Laing, 2001). In serving simultaneously as CEO and Chairperson, a CEO will likely have greater stature and influence among board members (Harrison, Torres and Kukalis, 1988) and thus hampering the board's independent monitoring capacity (Beatty and Zajac, 1994).

Agency theorists assume that boards of directors strive to protect shareholders' interest (Fama and Jensen, 1983) and thus suggest a negative relationship between CEO duality and firm performance (Finkelstein and D'Aveni, 1994; Rechner and Dalton, 1989; Donaldson and Davis, 1991). Therefore, they support the idea that the separation of the jobs/roles of CEO and Chairperson will improve organizational performance, because the board of directors can better monitor the CEO (Harris and Helfat, 1998).

The separation of the functions of the CEO and the Chairman of the board has been commonly suggested by practitioners and shareholder rights activists as an important condition for avoiding the conflict interest between the corporate constituencies and the management as well as for improving the board governance (e.g., OECD, 2004; Monks and Minow, 2001; Baysinger and Hoskisson, 1990). However, Berg and Smith (1978) reported a negative relationship between duality and ROI and no correlation between ROE or stock price and firm's performance. A complementary study of the same firms found that CEO duality is negatively related to ROE, ROI and profit margin (Rechner and Dalton, 1991). Additionally, Pi and Timme (1993) found a negative effect of duality to performance.

In contrast to agency theory, the leadership perspective suggests that firm will perform better if one person holds both titles, because the executive will have more power to make critical decisions (Harris and Helfat, 1998). Furthermore, steward theorists argue that if one person holds both positions, the performance might be improved, as any internal and external ambiguity regarding responsibility for organizational outcomes is being minimized (Finkelstein and D'Aveni, 1994; Donaldson, 1990). It also proposes that CEO duality would facilitate

effective action by the CEO and consequently improves the organisational performance under specific circumstances (Boyd, 1995). Pfeffer and Salancik (1978) argue that a single leader can respond to external events and facilitate the decision-making process. Harrison, Torres and Kukalis (1988) suggest that CEO duality facilitates the replacement of CEO in poorly performing companies. Additionally, Worrell and Nemeo (1997) and Dahya et. al. (1996) reported that the consolidation of CEO and chair positions is positively related to shareholders return. Finally, vigilant boards tend to favor CEO duality when performance is poor, because there is no threat of CEO entrenchment in poorly performing firms.

The approaches that have been developed with respect to CEO duality have concluded to inconsistent results and there is no clear direction and magnitude of CEO duality-board vigilance and firm performance (Daily and Dalton, 1992, 1993; Dalton et. al., 1998; Rechner and Dalton, 1989). Based on the above inconclusive arguments, the following proposition is put forward:

*Proposition 2:* Dual or separate leadership structure will be uncorrelated with firm's performance in terms of: a) Return on Capital Employed (ROCE), b) Return on Equity (ROE) and c) Profit Margin

*CEO Dependence/Independence:* While, there has been a tendency towards the separation of the positions of CEO and Chairman based on the need for independence between management and board of directors, there is no considerable body of empirical research, which examines the extent to which the separate board structure provided the well needed independence. It may be the case, that even in those instances that a separate leadership structured has been adopted -and as such, two persons have the positions of Chairman and CEO respectively- affiliation between these two individuals may distort their relationship and as result the function of the board. Affiliated Directors -in our case Chairpersons- who are potentially influenced by the CEO vis-à-vis personal, professional, and/or economic relationships may be less effective monitors of firm management (Bainbridge, 1993; Baysinger & Butler, 1985; Daily & Dalton, 1994a, 1994b).

Most of the research has been discussing the importance and effect of independent vs. depended boards primarily at the membership level; not at the Chairpersons-CEOs. Thus agency advocated suggest that affiliated directors tend to protect or enhance their business relationship with the firm and are considered to be less objective and less effective monitors of management than independent directors (Anderson and Reeb, 2003). Daily et al. (1998) proposed that affiliate directors develop conflicts of interests due to their relationship with the firm. Although, there is no study, which empirically examines the extent to which the separate board chairperson is more independent than the joint chairperson, empirical findings

demonstrate that outside independent directors on the board improves firm's performance (Barnhart, Marr and Rosenstein, 1994; Daily and Dalton, 1992; Schellenger, Wood and Tashakori, 1989) In summary, agency theory suggests a negative impact of affiliated directors on firm performance.

On the contrary, stewardship theory suggests that affiliated directors or Chairpersons may feel aligned with company's future performance because of their long-term employment and the close working relationship with the CEO. Thus, it may be argued that a separate but affiliated board structure tends to develop trust and empowerment and provide ease of communication needed for effective functioning (Muth and Donaldson, 1998).

Some scholars argue (e.g., Jensen and Meckling, 1976; Kesner et. al, 1986) the board of directors should be independent of management. They suggest that the board should be composed mainly of independent outsiders and should have an independent outsider as Chairman (Donaldson and Davis, 1994). Thus, the following proposition is developed:

*Proposition 3:* The greater the degree of independence between CEO and Chairman the higher the firm's performance will be in terms of a) Return on Capital Employed (ROCE), b) Return on Equity (ROE) and c) Profit Margin

## Research Methodology

### Sampling

Our aim was to carry out an empirical investigation of the Greek corporate governance practices and, therefore, our data were collected from the 354 listed companies in the Athens Stock Exchange ([www.ase.gr](http://www.ase.gr)). Quoted companies are classified into 53 economic activity related sectors, which fall into the following twelve categories: primary production, manufacturing industries, public services, retailers, hotels-restaurants, transport and communication, financial-accounting services, real estate and commerce activities, health and social care, general services, constructions and transitional category. Table 1 shows the turnover for each industry. Thirty-eight of these companies were not included in our sample, because the negotiation of their shares was interrupted due to various reasons (e.g. bankruptcy, transitional category, missing or incomplete data). Therefore, our actual sample consisted of 316 Greek companies.

**Table 1**

We have chosen companies quoted in the Athens Stock Exchange (ASE), because are the sole official market of shares trading in the Greek capital market. The ASE has been considered as a steady stream of regulatory measures over the last few years dictated by its developed market status- as of May 31, 2001- and it aims at enhancing the overall transparency obligations of issuers whose securities are listed in the ASE. It provides information about the way trading is

conducted in ASE, the brokerage members - companies of the ASE, the IPO and rights issues requirements, the obligations of listed companies and other issues concerning the products and the ASE market (ASE, 2001). Furthermore, listed companies are required to provide information regarding the background of their directors and their financial figures (Phan, Lee and Lau, 2003). Finally, secondary data on both the financial figures and the directors of those companies came from their proxy statements and annual reports.

### Measurements

The independent variables that have been analysed are: board size, leadership structure and CEO dependence/independence. In addition, organisational size, ownership, industry, age of the organisation and the number of years that the firms are listed in the Athens Stock Exchange were used as control variables.

The board size was measured by counting the absolute number of directors that are listed in the annual report. Board leadership structure is a binary variable coded as "0" for those employing the joint structure and "1" for those firms employing the separate board structure. CEO/Chairman dependence/independence was measured by using three values: "0" for CEO duality, "1" for CEO /Chairman separate but affiliated (i.e. CEO-Chairman dependence) and, finally, "2" for CEO/Chairman separate and independent (i.e. CEO unrelated to the Chairman).

Our dependent variable- organisational performance- was captured by three ratios: Return on Capital Employed (ROCE), Return on Equity (ROE) and Profit Margin. Return on Capital Employed (ROCE) was calculated by the sum of pre tax profit and financial expenses divided by total liabilities. Return on Equity (ROE) was measured by the ratio for net income divided by average stockholder's equity. Finally, profit margin was calculated by the ratio of net income divided by turnover (Meigs, Bettner and Whittington, 1998). All performance data were derived mostly from the ASE Market's database for the two consecutive years (2001-2002).

Regarding the control variables, the size of the organisation was operationalised by the total number of employees employed by the organisation. The literature has included a variety of measurements regarding organisational size such as: natural logarithm of sales volume, number of employees, net assets (Scott, 2003).

Firm's ownership was distinguished between pure Greek private companies, public companies, and foreign subsidiaries. The industry was classified according to the following twelve categories provided by the ASE: primary production, manufacturing industries, public services, retailers, hotels-restaurants, transport and communication, financial-accounting services, real estate and commerce activities, health and social care, general services, constructions and

transitional category. Organisational Age was available from the Athens Stock Exchange and was defined as the number of years elapsed since an organisation was incorporated (e.g., Ang, Colwm and Lin, 1999). Finally, the number of the years that the company is listed was gauged by calculating the number of years elapsed since the company listed in the ASE.

### Statistical Analysis

Descriptive statistics and correlations analysis were used firstly to portray the data and secondly to explore the existing relationships between our independent and dependent variables.

### Research Findings

The study aimed at providing both an account of the corporate governance practices in Greece and tests a number of propositions. Thus, first descriptive results will be presented followed by proposition testing through correlation analysis.

*Board Size:* As it can be seen in Diagram 1, the average board size of our sample was 7; the majority of Greek companies have boards consist from either 7 (29%) or 5 (27%) directors respectively. In United States, in similar studies, the average board size of 334 US hospitals was 10.26 (Goodstein, Gautam and Boeker, 1994); of 92 US restructuring firms was 11.28 (Johnson, Hoskisson and Hitt, 1993); of 139 US companies, consist (69) manufacturing and (70) services companies the average board size was 13.23 (Pearce and Zahra, 1991); of 111 US firms making 128 acquisitions was 12.1 (Byrd, Hickman, 1992); of 1251 organizations was 12.2 (Rosenstein and Wyatt, 1990); of 53 greenmail-paying firms was 11 (Kosnik, 1987); of 120 industrial corporations was 10 (Ocasio, 1994) and of 6800 general hospitals was 12.9 (Judge and Zeithaml, 1992). As such, it can be said that the average size of U.S boardroom was 11; which is significantly higher than the Greek boards.

In addition, in Europe, the average board size of 331 UK firms was 7.6 (O'Sullivan and Diacon, 1998); in 43 mutual insurance firms the average board size was 10 while in 86 proprietary firms was 7.5 (O'Sullivan and Diacon, 1999). Of 446 Danish listed companies was 5.2 (Rose, 2005) and of 53 listed companies in Ukraine was about 8 to 10 (Kostyuk, 2005). Based on the above, it seems that European companies use smaller boards than American corporations.

Finding from other contexts offer various results; for example the average board size of 212 companies in Singapore was 7.4 (Wan and Ong, 2005); of 104 Australian manufacturing listed companies was 7.36; of 35 Israeli firms was 16.7 (Chitayat, 1984); of 169 Japanese manufacturing listed firms was 27.62 (Bonn, Yoshikawa and Phan, 2004) and of 112 public sector firms in New Zealand was 5.85 (Cahan, Chua and Nyamoki, 2005).

Finally, interesting finding regarding U.S failed and non-failed firms, conducted by Chaganti, Mahajan and Sharma (1985), found that the board size of failed firms ranged from two to twenty and for non-failed ranged from six to twenty-five. The results indicate that well-performing firms have larger board size.

### Diagram 1

*CEO Duality:* As Diagram 2 depicts, there is nearly a balance between firms that they have chosen the separation of the CEOs and Chairman positions and those that have not. More particularly, 51.6% of Greek firms have adopted the CEO/Chairman duality approach; the same person serves two positions, while 48.4% have the separate approach; two individuals serve the positions of CEO and Chairman.

In a recent study conducted in Singapore Wan and Ong (2005) found that 30 percent of the respondents' boards have Chairman-CEO duality. The following studies report that separation of the two top jobs as follows.

25.4% of 331 UK (O'Sullivan and Wong, 1998); of 480 UK firms 62 % (Brown, 1997), of 50 large Japanese firms 88.9%, of 50 large UK firms 70% and of 50 US industrial corporations, 18.4% (Daily and Johnson, 1997); of the Fortune 500 firms 58 of them have partial non-duality (Baliga and Moyer, 1996), of 261 US firms 18.4% (Sundaramurthy, Mahoney and Mahoney, 1997); of 193 US corporations 52% (Boyd, 1994). Finally, in a study by Daily and Dalton (1995) in 50 bankrupt and 50 non-bankrupt firms, it was illustrated that 54.3% of bankrupt and 51.1% of non-bankrupt firms have different CEO and Chairman. In general, the findings illustrate that organisations both in U.S and in Europe tend to rely on the separate leadership structure model.

### Diagram 2

*CEO Dependence/Independence:* A closer look at the Diagram 2 and the findings depicted in Diagram 3, give us a slight different picture regarding the dependence-independence dichotomy of the Chairman-CEO's position. Investigating those firms - 48% - that the positions of Chairman and CEO are held by different persons we found that a significant proportion -34%- are somewhat affiliated; in other words there are either family members or have former employment ties. To summarize our findings from the preceding section we can say that only 32% of the firms in the ASE have adopted the "purely" independent structure, while 16% of the firms have embraced the independent but affiliated mode and finally the 51% of the Greek listed firms the CEO duality structure. Similarly, it was established that only 24 % of 320 quoted UK firms have independent boards (Weir and Laing, 2001) and in 20% of 365 of the largest U.S quoted corporations chairpersons were somehow related with the CEO and only 12.22% of

these firms, had a joint CEO/Chairperson structure (Daily and Dalton, 1997).

### Diagram 3

*Firm Performance:* The corporate performance of 316 Greek organisations has been captured by objective measurements. Three indicators measured performance: return on capital employed (ROCE), return on equity (ROE) and profit margin. It was found that the majority of Greek firms (67%) have ROCE between 1 to 10%, and 45% of firms have their ROE ranged from 1 to 10%. 23 % of the sample have enjoyed profit margin between 11 to 20 %, and 31% from 21 to 30%, as it is shown by Diagrams 4, 5, 6.

### Diagram 4

### Diagram 5

### Diagram 6

*Organisational Size:* as it can be seen from Diagram 7 the minimum number of staff employed by the organization is 2, the maximum is 15921 and the average is 541. In similar studies, it was found that the average firm size of 486 small manufacturing firms was 78.89 (Daily and Dollinger, 1992) and of 446 listed Danish firms was 3273 employees (Rose, 2005).

### Diagram 7

*Ownership:* According to our findings, most of Greek organisations (84.8%) are classified as pure Greek private companies, followed by foreign subsidiaries (9.8%) and by public foreign (5.45%), as it can be seen from Diagram 8.

### Diagram 8

*Industry:* Diagram 9 demonstrates that the vast majority (34%) of 316 Greek firms were manufacturing followed by 20% retailing and 12% rental and informatics. In studies conducted in Singapore, it was found that 40 percent of 212 listed companies in Singapore were manufacturing and 60 percent were financial services (Wan and Ong, 2005) and in Cyprus 48% of 44 listed companies were financial services, 18.55% were manufacturing and construction, 10.5% were tourism, 4.5% were transportation and distribution, 2% were retail and 7% were other industrial categories (Aloneftis, 1999).

### Diagram 9

*Organisational Age:* The empirical findings of our study demonstrate that the average age of 315 Greek organisations was approximately 34; while, most of the organizations (39%) were 21-40 years old and 35% were between one to twenty years old, as it can be seen from Diagram 10. In a study of family and

professionally managed firms, Daily and Dollinger (1992) found that the average organisational age was 41.72 years and of 67 firms consisted of 43 publicly traded and 24 privately traded was 10.42 years (Boeker and Goodstein, 1993). In addition, the average firm age of 104 manufacturing Australian firms was 43.44 and of 169 Japanese manufacturing firms was 63.73 (Bonn, Yoshikawa and Phan, 2004).

### Diagram 10

Number of Years listed in the Athens Stock Exchange: Diagram 11 indicates that the average number of years listed in the ASE was 13; however, the majority (80%) of Greek firms were quoted the last twenty years on Athens Stock Exchange and 10% of them in the last 40 years.

### Diagram 11

## Proposition Testing

Table 2 reports the correlations between the dependent and independent variables. The first Proposition aimed at examining the relationship between the board composition and the company's performance in terms of return on capital employed, return on equity and profit margin. Statistical analysis of this hypothesis failed to produce any significant evidence of association between these variables. However, it was found that statistical association between return on equity and board size exist by using Spearman's correlation. The interpretation of the association is that as board size increases, return on equity increases as well.

The second proposition- that attempted to explore the relationship between the CEO duality and performance of the firm in terms of return on capital employed, return on equity and profit margin failed to provide any significant statistical association. The data didn't support any relationship between CEO duality/separation and organisational performance.

The last proposition suggested an association between CEO dependence/independence and organisational performance in terms of return on capital employed, return on equity and profit margin. The results suggested that there is a not significant relationship between the dependence or independence of the CEO and the performance of the company.

### Table 2

## Conclusion and Discussion

Numerous corporate collapses and scandals have spurred recent changes, and boards are required to take a more active role in monitoring, evaluating and improving the performance of the CEO and consequently, the firm's performance. Boards are asked to evaluate and improve their own performance and therefore, the corporate governance practices of

the companies they govern. This study identifies a number of board characteristics that the literature advocates their significance on organizational effectiveness.

This study attempts to investigate the internal corporate governance structure among 316 Greek listed companies from data gathered in 2002. The three topics of interest were: board size, CEO duality, CEO-Chairman dependence/independence. These key variables were of increased interest, because they are considered important for determining board effectiveness, for creating long-term shareholder value and for protecting the interests of the shareholders.

The results of this study with respect to firm's performance of Greek listed firms inform the current debate about corporate governance. It was found that most Greek companies (29%), similar to many European companies, have average board size of seven members. There is a balance between Greek firms that they have chosen the separation of the CEOs and Chairman Positions and those that have not. More specifically, 51.6% of Greek firms have adopted CEO duality, while 48.4% tend to choose separate Chairman and CEO. In the situation of non-duality, it was found that 66% of that Chairman-CEO were completely independent and 34%- are somewhat affiliated.

Three hypotheses regarding board size, CEO duality, CEO dependence/independence were tested in relation to firm performance with respect to return of capital employed, return on equity and profit margin. Findings from the research suggest that neither board leadership structure nor CEO dependence/independence showed any strong significant effects to firm's performance. Similar studies conducted by other scholars (e.g., Daily and Dalton, 1992; Molz, 1988) found that separating the board of CEO and Chairman does not result in improved firm performance. However, a positive association was found between board size and return on equity by using Spearman's correlation analysis. This indicates that the size of the board is positively related with firm's return on equity.

Several limitations in our research can be identified and as such findings and conclusions presented in this paper must be interpreted cautiously. First, firm's performance was measured within a two-year period and not in time series of three or five consecutive years. The performance of the Greek listed companies might have been influenced by external factors (e.g., economic recession, bankruptcy). Second, our study didn't provide specific results in industry level (e.g. financial services, construction) and it might lead to unsubstantiated generalisations of our findings. Lastly, organizational size may be an important moderating variable of the Board-financial performance relationship.

Future research can attempt examining the relationship explored in this study by using different samples in terms of specific economic sectors (e.g., manufacturing or services), by incorporating more

indicators of financial performance or in terms of different organizational sizes (small-medium-large firms, family firms) should provide additional insights. In addition, an interesting examination could be between well performing and poor performing firms. Examining and comparing findings with other Balkan and European countries (e.g., Spain, Portugal) as well as United States can move the research in corporate governance further. More findings in the area of corporate governance will increase the insight of researchers in additional elements and factors that influence the discipline in the years to come.

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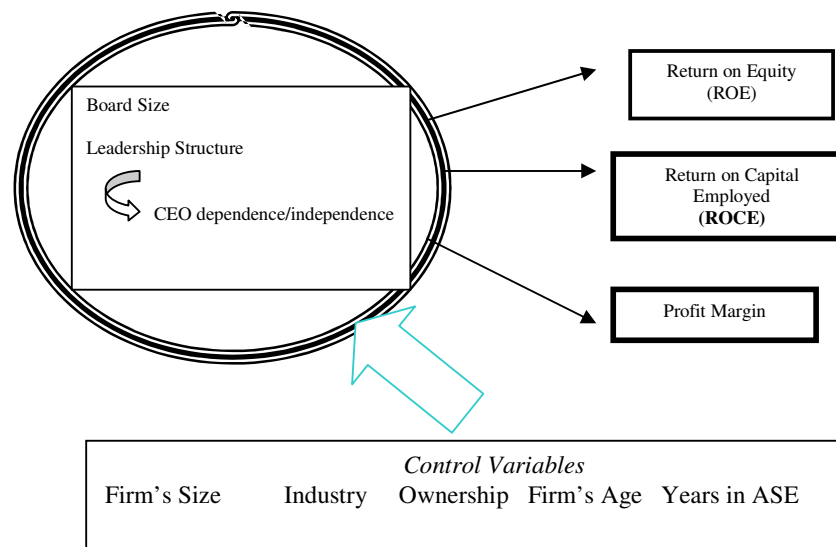
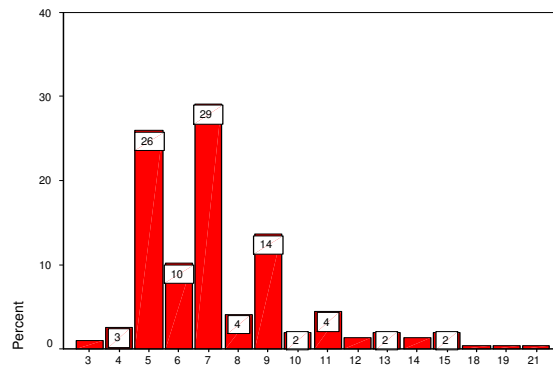


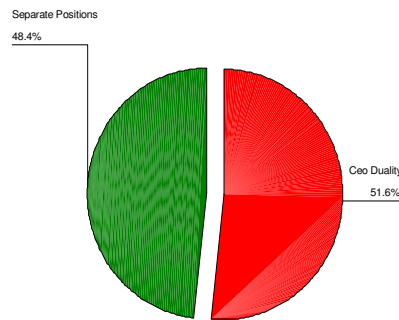
Figure 1. The Research Model

**Table 1.** Turnover per Industry for the Year 2001

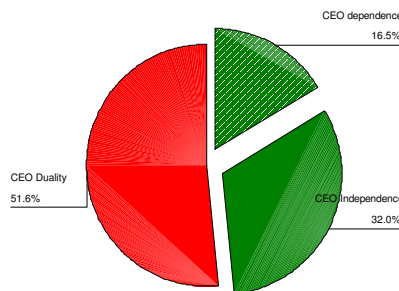
Industry Sectors	Number of Sales for the Year 2001
Primary Production	€52,927,552
Manufacturing Industries	€3,785,799,221
Public Services	€46,743,980
Retailers	€1,315,718,522
Hotels-Restaurants	€26,702,700
Transport and Communication	€1,157,506,074
Financial-Accounting Services	€3,369,079,396
Real Estate and Commerce Activities	€110,035,205
Health and Social Care	€36,519,585
General Services	€438,141,806
Constructions	€353,002,537
Transitional Category	€84,831,388



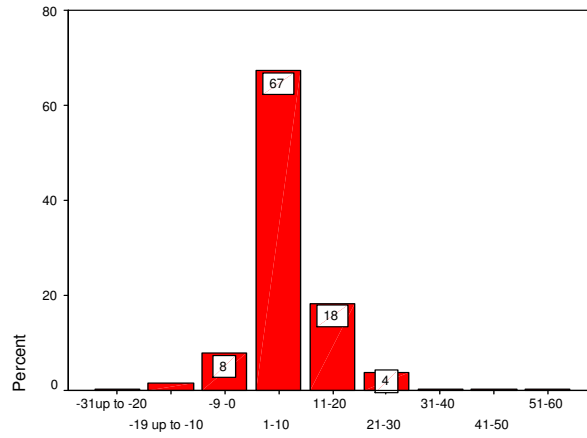
**Diagram 1.** Board Size (N=316,  $\bar{x}$  = 7.35, SD = 2.68)



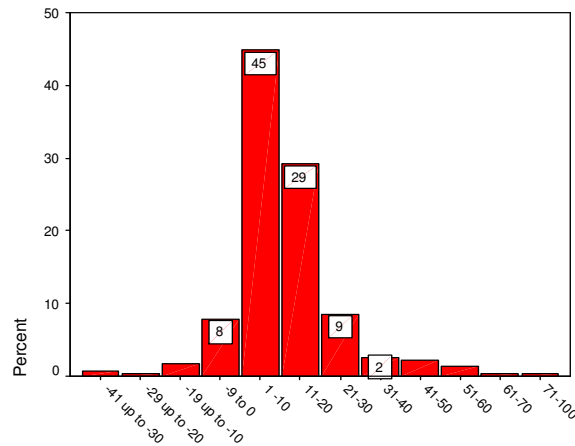
**Diagram 2.** CEO Duality (N=316)



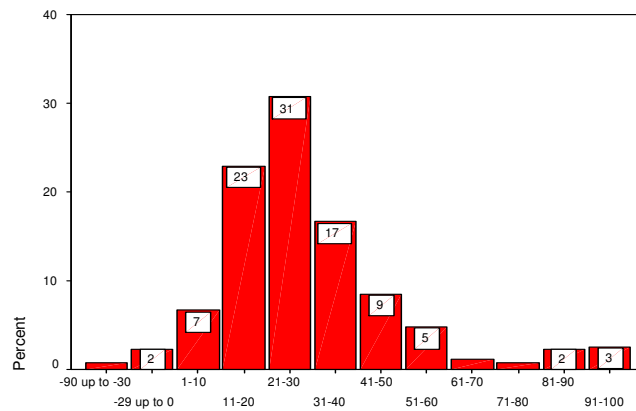
**Diagram 3.** CEO Dependence/Independence (N=316)



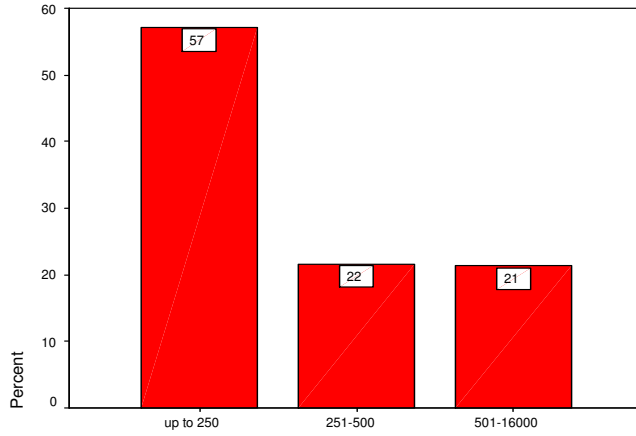
**Diagram 4.** Performance Measurements-ROCE (Return on Capital Employed) (N=316,  $\bar{x}$  =7.34, SD=7.9)



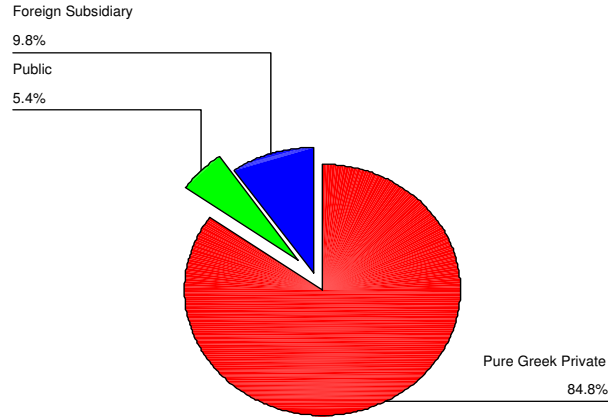
**Diagram 5.** Performance Measurements-ROE (Return on Equity) (N=316,  $\bar{x}$  =11.64, SD=15.33)



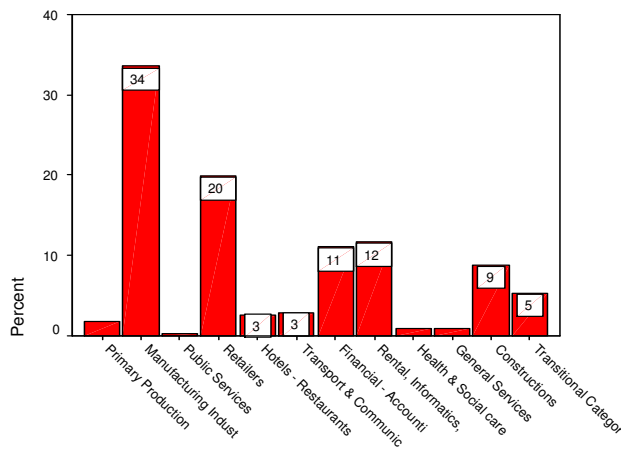
**Diagram 6.** Performance Measurements-Profit Margin (N=301,  $\bar{x}$  =29.64, SD=21.77)



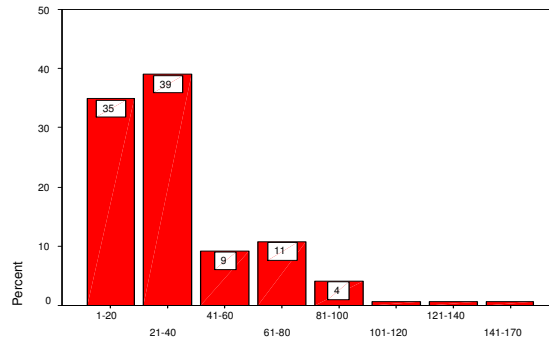
**Diagram 7.** Organisational Size (N=306,  $\bar{x}$ =541, SD=1275)



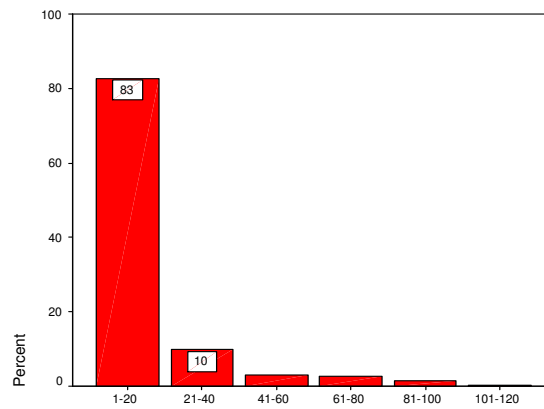
**Diagram 8.** Ownership (N=316)



**Diagram 9.** Industry (N=316)



**Diagram 10.** Organisational Age (N=315,  $\bar{x}$  =33.92, SD=25.96)



**Diagram 11.** Number of Years listed in the ASE (N=307,  $\bar{x}$  =13.10, SD=18.25)

**Table 2.** Correlation Matrix for Corporate Governance Characteristics and Organisational Performance

Independent	Board Size	CEO Duality	CEO Dependence/ Independence
Dependent			
Return on Capital Employed (ROCE)	-.051	.009	-.021
Return on Equity (ROE)	.075 <sup>1</sup>	.036	.029
Profit Margin	-.025	.015	.025

\*Correlation is significant at the 0.05 level

\*\*Correlations is significant at the 0.01 level

<sup>1</sup>Correlation at .124\* Spearman's Analysis

Measurements:

Board Size: "0" for small (1-10 board members), "1" for large (11-21 board members)

CEO Duality: "0" for joint leadership structure, "1" for separate leadership structure

CEO/Chairman dependence/independence:

"0" for CEO duality

"1" for CEO/Chairman separate but affiliated,

"2" for CEO/Chairman separate and independent

## A COMPARISON OF CORPORATE GOVERNANCE SYSTEMS IN THE U.S., UK AND GERMANY

Steven M. Mintz\*

### Abstract

This paper compares corporate governance principles in the U.S., UK, and Germany. The U.S. and UK represent shareholder models of ownership and control whereas in Germany a stakeholder approach to corporate governance provides greater input for creditors, employees and other groups affected by corporate decision making. Recent changes in the U.S. and UK as evidenced by the Sarbanes-Oxley Act and a variety of reports including the Cadbury Committee Report recognize the importance of a more independent board of directors, completely independent audit committee, and strong internal controls. In Germany, some of these initiatives have been suggested as well. The U.S. can learn from their British counterparts and endorse governance advances such as to separate out the role of the chair of the board of directors and the CEO. Other changes that would strengthen governance in the U.S. include to: limit the number of boards on which a person can serve; recognize the rights of stockholders to nominate directors; and give shareholders a more direct role in board oversight. The U.S. should consider adopting some of the German attributes in their governance system by incorporating employees and employee representative groups into the oversight process. After all, it was the employees that worked for Enron who suffered the most as a result of corporate fraud including a loss of jobs and the near wipe-out of their 401K retirement plans.

**Keywords:** agency theory, corporate governance, Sarbanes-Oxley, stakeholder theory, Germany, United States, United Kingdom

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### Introduction

The collapse of BCCI in the late 1980s, that caused a financial panic spanning four continents and engulfing the Bank of England, was the impetus for the 1992 *Report of the Committee on the Financial Aspects of Corporate Governance* (Cadbury Committee). The Committee investigated accountability of the Board of Directors to shareholders and society. The report and associated "Code of Best Practices" made recommendations to improve financial reporting, accountability, and board of director oversight. Ultimately, a Combined Code on Corporate Governance (Code) was adopted and it is now a securities listing requirement in the UK ([www.ecgi.org/codes.html](http://www.ecgi.org/codes.html)).

Accounting scandals at companies in the U.S. such as Enron, WorldCom, Tyco, and Adelphi, illustrate the failure of corporate governance systems. In each case, senior executives and board of director members did not live up to the legal standard of "duty of care" that obligates top corporate officials to act carefully in fulfilling the important tasks of monitoring and directing the activities of corporate management. Moreover, the "duty of loyalty" standard that mandates not using one's corporate position to

make a personal profit or gain was violated by top officials at each of the companies.

The Sarbanes-Oxley Act ("the Act") was adopted by Congress and signed into law by President Bush in August 2002 as a response to these and other corporate failures. The question is whether the Act goes far enough in making changes in the corporate governance system in the U.S. to adequately protect the interests of shareholders, creditors, employees and others who expect top management and board officials to safeguard corporate assets and who rely on these parties for accurate information about corporate resources.

The failure of Parmalat, an Italian company, led to a series of initiatives in the European Union (EU) to modernize corporate governance systems that bring member countries closer to requirements of the Act. Still, differences exist that can impede efforts to converge corporate governance systems and facilitate the flow international investment capital.

The purpose of this paper is to identify the differences in corporate governance systems in the U.S., UK, and Germany that result from historical differences in each country and different methods of financing business operations. These countries have been selected because they represent three of the most



advanced in terms of developing effective governance systems. Also, while the U.S. patterns its system after the common law approach formed in the UK, the German system is based on Roman civil law. These systems are followed by many countries around the world and they provide a basis for the comparisons.

The paper proceeds as follows. The foundations of the shareholder-oriented and broader stakeholder-oriented systems of corporate governance are discussed in the first section including agency theory and employee governance considerations. Next, the components of corporate governance in the U.S. are explained. This is followed by a description of recent changes in corporate governance in the U.K. The discussion of the components of corporate governance in Germany that follows emphasizes differences with the U.S. in the control and financing of business. The following section provides a list of differences in corporate governance in the U.S., and the UK and German systems, that should be considered by regulators in the U.S. as part of any effort to facilitate the convergence of international corporate governance systems. The final section presents concluding comments.

### **Foundations of corporate governance systems**

Typically, the phrase “corporate governance” invokes a narrow consideration of the relationships between the firm’s capital providers and top management, as mediated by its board of directors (Hart 1995). Shleifer and Vishney (1997) define corporate governance as the process that “deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment.”

Goergen et al. (2004, 2) point out that a corporate governance regime typically includes the mechanisms to ensure that the agent (management) runs the firm for the benefit of one or more principals (shareholders, creditors, suppliers, clients, employees and other parties with whom the firm conducts its business). The mechanisms include internal ones such as the board of directors, its committees, executive compensation policies, and internal controls, and external measures that include monitoring by large shareholders and creditors (in particular banks), external auditors, and the regulatory framework a of securities exchange commission, the corporate law regime, and stock exchange listing requirements and oversight.<sup>1</sup>

### **Agency Theory**

In whose interests should corporations be governed? The traditional view in American corporate law has been that the fiduciary duties of corporate managers and directors (agents) run to the shareholders of the

corporation (principal). Those who argue for the primacy of shareholder interests in corporate governance systems typically cite the famous dictum from *Dodge Bros. v Ford* that “the corporation exists for the benefit of the shareholders” (Boatright 1994 and Goodpaster 1991) as evidence of a restraint on the discretion of management. It follows from agency theory that the fiduciary responsibility of corporate managers is to the shareholder. Shareholders receive returns only after other corporate claimants have been satisfied. In other words, shareholders have a claim on the corporation’s residual cash flows.

Since the shareholder’s claim is consistent with the purpose of the corporation to create new wealth, and the shareholders are allegedly at greater risk than other claimants, agency theorists reason that corporate directors are singularly accountable to shareholders (Brickley et. al. 2001). According to Hawley et al. (1999), the central problem in corporate governance then becomes to construct rules and incentives (that is, implicit or explicit ‘contracts’) to effectively align the behavior of managers (agents) with the desires of the principals (owners). However, the desires and goals of management and shareholders may not be in accord and it is difficult for the shareholder to verify the activities of corporate management. This is often referred to as the agency problem.

### **Agency Costs**

A basic assumption is that managers are likely to place personal goals ahead of corporate goals resulting in a conflict of interests between stockholders and the management itself. Jensen & Meckling (1976) demonstrate how investors in publicly-traded corporations incur (agency) costs in monitoring managerial performance. In general, agency costs also arise whenever there is an “information asymmetry” between the corporation and outsiders because insiders (the corporation) know more about a company and its future prospects than outsiders (investors) do.

Agency costs can occur if the board of directors fails to exercise due care in its oversight role of management. Enron’s board of directors did not properly monitor the company’s incentive compensation plans thereby allowing top executives to “hype” the company’s stock so that employees would add it to their 401(k) retirement plans. While this had occurred, the former CEO, Ken Lay, sold about 2.3 million shares for \$123.4 million.

### **Overcoming the Agency Problem**

The agency problem can never be perfectly solved and shareholders may experience a loss of wealth due to divergent behavior of managers. Investigations by the SEC and Department of Justice of twenty corporate frauds indicate that \$236 billion in shareholder value was lost between the time the public first learned of the fraud and September 3, 2002, the measurement date ([www.sec.gov](http://www.sec.gov)).

<sup>1</sup> Other mechanisms exist including the corporate dividend policy, the market for corporate control, and product-market competition but these are not addressed in the paper.

### **Executive Compensation**

One of the most common approaches to the problem is to tie managerial compensation to the financial performance of the corporation in general and the performance of the company's shares. Typically, this occurs by creating long-term compensation packages and by the possibility to issue stock options related to the firm's stock price. These incentives aim at encouraging managers to maximize the value of shares.

### **Controlling Management through Board of Directors' Actions**

The stockholders select the board of directors by electing its members. Managers

- that do not pursue stockholders' best interest can be replaced since the board of
- directors can hire and fire management. However, the accounting scandals taught us that boards can be controlled by management or be inattentive to their oversight responsibilities. For example, Andy Fastow, the now indicted former chief financial officer (CFO) of Enron, directly or indirectly controlled many of the special purpose entities that he set up. Yet, Enron's board waived the conflict of interest provision in the company's code of ethics to enable Fastow to wear both hats.

### **The Role of Institutional Investors**

In response to concerns about the size of executive pay packages, institutional and other influential shareholders have become more active in seeking a stronger role in the director nominating process. New rules adopted at MCI (formerly known as WorldCom) require the board to solicit director nominations from holders representing at least 15 percent of its shares. Marsh & McLennan Cos. agreed in March 2004 to nominate a director recruited by institutional investors after months of negotiations. The U.S. government joined the effort when on May 1, 2003, the SEC (Series Release No. 34-47778) solicited public response on the adequacy of the proxy process with respect to the nomination and election of directors. On July 15, 2003, the Commission published on its website (<http://www.sec.gov>) a summary of the comments most of which criticize the current process for the nomination and election of directors Exchange Act Release No. 34-48301). Two particular areas of concern are the nomination of candidates for election as directors and the ability of security holders to communicate effectively with board members.

In response to these concerns, on October 8, 2003, the SEC proposed rule amendments that would, under certain circumstances described below, permit shareholders representing at least 5% of voting shares to put their own board nominees alongside management's choices on a company's official ballot

(Series Release No. 34-48626). The proposed rules stop short of giving security holders the right to nominate directors. Instead, the proposed requirements would apply only to those companies at which one of two triggering events has occurred and would remain in effect for two years after the occurrence of either or both events. These events include: (1) the withholding of support for one or more directors from more than 35 percent of the votes cast; or (2) a request by a security holder or group of security holders owning more than 1% of the company's voting securities for one year, supported by more than 50 percent of the votes cast, that the company become subject to the alternative nomination procedure.

### **The Accounting System as a Monitoring Device**

The accounting system should help to prevent and detect fraud including false and misleading financial reports, asset misappropriations, and inadequate disclosure. Internal controls are established by management to help achieve these goals. The accounting statements that are prepared by management report the financial results in accordance with generally accepted accounting principles (GAAP), and the external auditor renders an independent opinion on those statements.

### **Internal Controls**

Management has a stewardship responsibility to protect company assets. An important component of internal control is the processes in place to safeguard company assets. As the recent scandals indicate, however, even the best internal control system will fail if top management overrides the controls or the directors turn away from their responsibilities. For example, top executives at Tyco and Adelphia used hundreds of millions of dollars from interest-free loans for personal purposes. The board at each company claimed to have been uninformed about the nature and purpose of the loans. In at least one case (WorldCom) members of the board also received similar favored treatment.

### **Audited Financial Statements**

The financial reports can be used to mitigate the conflict between owners and managers posited by agency theory. If owners perceive that accounting reports are reliable, then management should be rewarded for their performance and for helping to control agency monitoring costs.

While the management is responsible for the preparation of the financial reports, publicly-owned companies must hire independent auditors to render opinions on the fairness of the presentations in the financial statements. The auditors fail in their oversight role when they ignore management's manipulations of the financial statements or its

unauthorized use of company resources, as was the case in all of the aforementioned accounting scandals.

### **Constituency Statutes**

The shareholder model relies on the assumption that shareholders are entitled (morally, not merely legally) to direct the corporation because their capital investments provide ownership rights that are an extension of their natural right to own private property. The debate over whose interests should be emphasized in corporate decision-making that began shortly after Berle and Means (1932) wrote *The Modern Corporation and Private Property* flared up again in the 1980s as states began to pass corporate constituency statutes. Constituency statutes allow corporate officers and directors to take into account the interests of a variety of corporate stakeholders in carrying out their fiduciary duties to the corporation. The statutes suggest that a corporation may be run in the interests of groups other than shareholders.

McDonnell (2002) points out that while the statutes seem to have appeal to advocates of employee involvement in corporate governance, they were passed in response to the takeover wave of the eighties, and critics charge their main effect is to “entrench incumbent managers.” McDonnell believes (2) they are a “poor substitute for direct employee involvement in corporate governance” because constituent groups can’t sue under the statutes. The contractarian point of view, which has found its way into corporate law scholarship through the infusion of economic thought, challenges the long-standing belief that shareholders have a right to expect that their property will be managed in their interest. The contractarian view portrays the corporation as a nexus of contracts between various parties which interact through the corporation, potentially including employees, customers, suppliers, creditors, local communities, and the state and national economies. According to this perspective, the corporation is merely a convenient legal fiction which may help structure these interactions.

### **Stakeholder Theory**

Freeman’s (1984) seminal book on stakeholder theory posits that successful managers must systematically attend to the interests of various stakeholder groups. This “enlightened self-interest” position has been expanded upon by others (Donaldson and Preston 1995 and Evan and Freeman 1983) who believe that the interests of stakeholders have intrinsic worth irrespective of whether these advance the interests of shareholders. Under this perspective, the success of a corporation is not merely an end in itself but should also be seen as providing a vehicle for advancing the interests of stakeholders other than shareholders. Boatright (1994) suggests that the shareholder-management relation is not unique because the fiduciary duties of officers and directors are owed not

to shareholders but to the corporation as an entity with interests of its own, which can, on occasion, conflict with those of shareholders. Further, “corporations have some fiduciary duties to other constituencies, such as creditors (to remain solvent so as to repay debts) and to employees (in the management of a pension fund)” (403).

### **Employee Governance**

McDonnell (2002, 13) supports employee governance as a way to ensure that corporations are governed in part in the interests of employees. He identifies three approaches: employee share ownership; electing employee representatives to the board of directors; and employee involvement in quality circles, work councils, or the like. He believes that employee involvement in corporate governance can work as a potentially powerful additional mechanism to control managerial opportunism and to direct the corporation towards greater efficiency. Boatright (2004, 16) addresses whether employee governance conflicts with shareholder governance and concludes these two forms of governance are not conflicting. Instead, they are “complementary and mutually beneficial.” The strength of shared governance is that “the two groups make decisions on matters where they have superior information and an incentive to increase the value of the firm.” He also believes that their respective forms of governance support the needs of each group “to protect their firm-specific assets and to satisfy their risk preferences.” Historically, the shareholder model of corporate governance has been followed in the U.S. and UK whereas German companies adhere to a stakeholder model. The latter considers corporate governance to be more than simply the relationship between the firm and its capital providers. On this view, corporate governance also implicates how the various constituencies that define the entity serve, and are served by, the corporation.

### **Shareholder model in the U.S.**

The following brief summary of how the shareholder system operates in the U.S.

### **The Objective and Conduct of the Corporation**

The American Law Institute’s *Principles of Corporate Governance* (The Principles) (1994) take as a basic proposition that a business corporation through its activities of producing and distributing goods and services and making investments, should have as its objective the conduct of such activities with a view to enhancing corporate profit and shareholder gain. This economic objective should be carried out with a long-term perspective that generally depends on meeting the fair expectations of constituency groups such as employees, customers, suppliers, and members of the communities in which the corporation operates. Thus,

the “responsible maintenance of these interdependencies” gains recognition only within the larger context of enhancing long-term value for the equity owners. Given the impracticality of direct shareholder review and the constraints on the efficacy of financial markets, the effectiveness of board operations and how committees carry out independent responsibilities take on greater importance.

### **Role of Senior Executives**

In the U.S., while the role of top manager typically is vested by the board in the CEO, the Principles permit that function to be vested in a group of senior executives. For example, in Germany, the “management board” operates collectively to carry out the responsibilities of top management. A “supervisory board” oversees their efforts primarily on behalf of the shareholders and employees. While the functioning of this two-tier system will be explained later on, it is important to emphasize now that nothing prevents U.S. corporations from considering such a structure.

### **Functions and Powers of the Board of Directors**

The primary function of the board of directors is the selection of the CEO and concurrence with the CEO’s selection of the company’s top management team. This includes monitoring the performance of the CEO, determining compensation, and reviewing succession planning. Other important responsibilities include: to select and recommend to shareholders for election an appropriate slate of candidates for the board of directors; to evaluate board processes and performance; to review the adequacy of systems to comply with all applicable laws/regulations; and to review and, where appropriate, approve major changes in and the selection of appropriate auditing and accounting principles to be used in the preparation of the corporation’s financial statements. In practice, this function often will be delegated to the audit committee.

### **Committees that Enhance Governance**

Typically, there are three main committees that support the work of the board of directors of a publicly-owned corporation including the audit committee, nominating committee, and the compensation committee. While this paper focuses on the work of the audit committee because of its critical role in ensuring the reliability of financial statements, it is important to point out that the nominating committee of the board in many U.S. companies has assumed the responsibility of reporting on corporate governance practices.<sup>2</sup>

According to the Principles (110-113), the independence of board decisions is enhanced by

having a majority of the directors “free of any significant relationship with the corporation’s senior executives.” These outside directors should not have any “close personal relationships with senior executives and no “consulting or other relationships with the corporation that provide a significant portion of the director’s income.” The audit committee should be composed of at least three independent members “who are neither employed by the corporation nor were so employed within the previous two years.”

### **Audit Committee**

The functions and powers of the audit committee relate to its relationship with the external auditors and include (ALI, 115-120):

- recommend the firm to be employed as the corporation’s external auditor and review the proposed discharge of any such firm,
- review the external auditor’s compensation, the proposed terms of its engagement, and its independence,
- serve as a communication link between the external auditor and the board,
- review the corporation’s annual financial statements, the results of the external audit, the auditor’s report, and management’s responses to audit recommendations,
- review any significant disputes between management and the external auditor that arose in connection with the preparation of those financial statements,
- consider, in consultation with the external auditor, the adequacy of the corporation’s internal controls,
- consider major changes and other major questions of choice respecting the appropriate auditing and accounting principles and practices to be used in the preparation of the corporation’s financial statements, when presented by the external auditor, a principal senior executive, or otherwise.

### **Sarbanes-Oxley Act of 2002**

The following discussion emphasizes the major provisions of the Act that affect public companies. These can be divided into three groups based on whether they affect the responsibilities of top corporate officials or board members, the audit committee, or the preparation of financial reports.

### **Top Corporate Officials and Board Members**

The CEO and CFO must certify in a statement that accompanies the audit report the appropriateness of the financial statements and disclosures and that they fairly present, in all material respects, the operations and financial condition of the company. A violation of this provision must be knowing and intentional to give rise to liability. Management should make an assessment of internal controls and disclosed its

<sup>2</sup> See, for example, the Governance Principles issued by General Electric’s Nominating and Corporate Governance Committee [www.ge.com/en/spotlight/commitment/governance\\_principles.html](http://www.ge.com/en/spotlight/commitment/governance_principles.html).

findings in an “internal control report” that the auditors will review. It is unlawful for any officer or director of a public company to take any action to fraudulently influence, coerce, manipulate, or mislead any auditor engaged in the performance of an audit for the purpose of rendering the financial statements materially misleading. If a company is required to prepare a restatement due to “material noncompliance” with financial reporting requirements, the CEO and CFO must reimburse the company “for any bonus or other incentive-based or equity-based compensation received” during the 12 months following the issuance of the non-compliant document and “any profits realized from the sale of securities” of the company during that period. Officers and directors are prohibited from buying or selling company stock during blackout periods when employee sales and purchases are restricted. Any profits resulting from such sales can be recovered from the offending party by the company. If the company fails to bring a lawsuit or prosecute diligently, a lawsuit to recover the profit may be instituted by an owner of company securities. [It is worth noting that Enron employees were locked-out during a ten day period when the stock price was declining about \$10 per share.]

Generally, it is unlawful for a public company to extend credit to any director or executive officer. [The CEOs at WorldCom, Tyco and Adelphia abused their authority in granting themselves hundreds of millions of dollars of loans without the approval of the board of directors.]

### **Audit Committee**

Each member of the audit committee of the board must be independent of the public company defined as: “Not receiving, other than for service on the board, any consulting, advisory, or other compensatory fee from the issuer, and as not being an affiliated person of the issuer or any of its subsidiaries.”

	<u>Germany</u>	<u>U.K.</u>	<u>U.S.</u>
Which of the following countries has done most to improve standards of corporate governance over the past year?	7%	16%	71%
Which of the following countries has the farthest to go in improving standards of corporate governance?	7%	6%	23%

One possible interpretation of the results is that corporate governance systems in the UK and Germany began to strengthen even before the Sarbanes-Oxley Act was adopted and now the U.S. is playing catch-up.

### **Recent changes in corporate governance in the UK**

Given the similarities in legal system between the U.S. and UK<sup>3</sup>, this section will focus primarily on recent changes in the UK that might be adopted in the U.S.

The audit committee is required to be directly responsible for the appointment, compensation and oversight of the auditors including resolution of disagreements between management and the auditors regarding financial reporting, and the auditors must report such disagreements directly to the audit committee. The audit committee should establish procedures for the receipt, retention and treatment of complaints received by the company regarding accounting, internal accounting controls, or auditing matters and any confidential, anonymous submission by employees of the company of concerns regarding questionable accounting or auditing matters.

The board must notify the SEC of pending investigations involving potential violations of the securities laws, and coordinate its investigation with the SEC Division of Enforcement.

### **Financial Reporting**

Each report that is required to be prepared in accordance with GAAP must “reflect all material correcting adjustments” that have been identified by the auditors. Each annual and quarterly financial report must disclose all material off-balance sheet transactions and other relationships with unconsolidated entities (related parties) that may have a material current or future effect on the financial condition of the issuer. [By some accounts Enron created more than 3,000 special purpose entities that were kept off the books of the company to hide debt and inflate profits.] While it may be too early to know if the Act will positively influence corporate governance in the U.S., a survey of 310 senior executives around the world conducted by the Economist Intelligence Unit and sponsored by KPMG (2003) indicates strong support for recent U.S. efforts to improve corporate governance.

The Cadbury Committee recommendations for disclosure of directors’ emoluments led to the Greenbury Report in 1995 that established extensive disclosures on directors’ remuneration to be found in the annual reports of UK companies. The Hempel Report in 1998 confirmed much of the work of Cadbury and Greenbury and it led to *The Combined Code on Corporate Governance* (Code) (2003). Compliance with this Code is a Stock Exchange requirement.

<sup>3</sup> For a discussion of these issues, see Christopher Nobes and Robert Parker, *Comparative International Accounting* (7<sup>th</sup> ed. 2002) and

Clare Roberts, Pauline Weetman and Paul Gordon, *International Financial Accounting: A Comparative Approach* (2<sup>nd</sup> ed. 2002).

The Code requires that the annual report of a major UK company should contain a report from the Remuneration Committee, a statement on Corporate Governance, a statement on internal controls, a statement on the going concern status of the company, and a statement of the directors' responsibilities. The following is a list of requirements that differ from those in effect enacted in the U.S.

The chair of the board should meet with non-executive directors without the executives present.

Led by the senior independent director, the non-executive directors should meet without the chair present at least annually to appraise her performance and on such other occasions as are deemed appropriate. The roles of the chair and CEO should be separated. The division of responsibilities should be clearly established, set out in writing, and agreed by the board. At least half of the board, excluding the chair, should comprise non-executive directors determined by the board to be independent.

The board should appoint one of the independent non-executive directors to be the senior independent director. The senior independent director should be available to shareholders if they have concerns that have not been alleviated by top company officials.

Shareholders should be invited specifically to approve all new long-term incentive arrangements and significant changes to existing schemes unless prohibited by the Listing Rules.

The Listing Rules require a statement to be included in the annual report relating to compliance with the Code. Some of the important provisions follow.

- An explanation from the directors of their responsibility for preparing the accounts and a statement by them about their reporting responsibilities;
- A statement from the directors that the business is a going concern, with supporting assumptions or qualifications as necessary;
- A report that the board has conducted a review of the effectiveness of the group's system of internal controls;
- A separate section describing the work of the audit committee in discharging its responsibilities;
- Where the board does not accept the audit committee's recommendation on the appointment, reappointment or removal of an external auditor, a statement of the audit committee explaining the recommendation and the reasons why the board has taken a different position; and
- Of particular note is the requirement that UK directors have responsibilities that, in the U.S., are the sole purview of management including the preparation of financial statements and review of internal controls. Also, the Listing Rules require a Corporate Governance Report to be included in the annual report and there must be a "Statement of Compliance" whether the company

meets the provisions of the Combined Code on Corporate Governance.

### **Stakeholder model in Germany**

Three characteristics of the German stakeholder model of corporate governance that distinguish it from the U.S. model are: (1) the pattern of ownership and control; (2) a two-tier board of directors' system; and (3) employee codetermination.

### **Ownership and Control**

Jackson et al. (2004, 6) point out that corporate ownership and control in Germany is marked by three features including high ownership concentration, the predominance of strategic ownership ties, and the importance of banks in external financing and monitoring.

### **Ownership Concentration**

Ownership concentration is high in Germany and minority shareholders play a limited role. According to data for the year 1999 released by The *Bundesbank*, non-financial corporations held 29.3 percent of the equities, banks and insurance companies owned 22.5 percent individuals, investment firms and others (13.6%), individuals (17.5%), foreigners (16.0 percent), and the government (1.0 percent).

Ownership is closely related to strategic interests of other organizations. Pyramidal conglomerate holding companies (*Konzern*) and dense-bank industry networks are both important. The ownership stakes reflect strong involvement with particular enterprises, unlike the more diversified and liquid trading of institutional investors (Jackson et al., 7). German universal banks play an integral role in monitoring corporate performance. Banks are closely linked to business through credit, large equity stakes, the exercise of proxy votes, and supervisory board representation (Edwards and Fischer 1994). The role of banks and the mixing of debt and equity ownership differs from the U.S. where, historically, banks have been prohibited from owning large stakes in corporations as a result of the passage of the Glass-Steagall Act that grew out of the Depression-era notion that it was best to separate the roles of banker and broker. Even though Glass-Steagall was repealed by Congress in 1999 ending restrictions on direct ownership of U.S. equity by banks, the differences in pattern of ownership between the U.S. and Germany persist.

### **Two-tier Board**

A distinguishing characteristic of German corporate governance is the two-tier board of directors system. The Management Board (*Vorstand*) is charged with managing the enterprise for the benefit of a wide array

of interests. The Supervisory Board (*Aufsichtsrat*) represents the shareholders and employees. This board consists of non-management members and it appoints, supervises and advises the members of the Management Board on policy but does not participate in the company's day-to-day management. In relying on a two-tier structure, Germany has formalized the distinction between managing the company and supervising the management of the company. According to Goergen et al. (17), the management board is legally entrenched with terms typically lasting for five years. Only the supervisory board can remove the members of the management board. The supervisory board members also are rooted in to their responsibilities with contracts up to five years and options to renew. Therefore, a new controlling shareholder might have to wait to replace board members.

### **Codetermination**

Germany has a strong employee codetermination program. Work councils have extensive participation rights and employees are represented in the corporate boardroom. Typically, employee representatives (either company employees or union representatives chosen to represent employees) make up half of the representatives of the Supervisory Board. Consequently, these employees do not meet either the SEC's or the New York Stock Exchange definition of "independent directors" because of their material relationship with the company.

### **Stakeholder Monitoring**

The German system of corporate governance builds on insider relationships while the U.S. system relies on external participation. Schmidt (2003, 9-11) identifies three groups of powerful and influential stakeholders on the supervisory board. The first are shareholders that own large blocks of stock (25 percent or greater) that give it the power to veto important decisions. The most likely "blockholder" is another business enterprise. The second group of blockholders is wealthy families, often those of the company's founder. The third are financial institutions, especially the big commercial banks such as Deutsche Bank and Dresdner Bank.

### **Role of Banks**

Shleifer and Vishny (1997) argue that large creditors fulfill a role similar to large shareholders because these creditors have large investments in the firm and therefore a strong incentive to monitor the firm's management.

In Germany, the banks owning shares in listed firms are frequently also the main bank (*Hausbank*) of these firms. Where there is a danger of bankruptcy and the bank faces a refinancing demand by the firm, its creditor claims may encourage the bank to make the

firm file for liquidation whereas the equity claims may lead the bank to revoke its loans. These conflict of interest decisions are made more difficult when intricate control-based networks (which may also comprise banks) exist such that banks decision may be influenced by the objectives of the network/conglomerate (Goergen 19).

When a bank also is a shareholder of the borrower, this information helps to determine whether the need for external funds is due to temporary illiquidity or bad firm management. A possible downside is that banks may emphasize their creditor relationship with the borrower to the detriment of shareholders. For example, a bank might encourage borrowers to assume more debt, pay higher interests rates on their debt, or undertake less risky projects than would be optimal from the point of view of shareholders.

Banks in Germany frequently exert control by directly participating in the management of their borrowers through representation on a borrower's supervisory board. One advantage of bank involvement is that it mitigates problems stemming from information asymmetries. Through the extensive information gained from their lending activities, banks gain valuable information that might not be available to other stakeholders. Unfortunately, there is no guarantee that a company will disclose everything to the bank and that the bank will use the information wisely as the Parmalat scandal demonstrates. The loss to banks that loaned money to Parmalat is in the billions including \$647 million of total exposure for Bank of America. While banks were lining up to do business with the company, some investment bankers raised questions about the size of Parmalat's debt.<sup>4</sup>

### **Codes of Best Practice**

The Baums Government Panel urged the federal government in 2000 to begin drafting a "Transparency and Disclosure Act" that would include tightening the fiduciary duties of the management and supervisory board members by extending their civil liability from the current standard of "willful intent" (similar to fraud) to also include "gross negligence" (constructive fraud or "reckless disregard" in the U.S.). Furthermore, the number of external supervisory board positions that a supervisory board member could hold would be limited to five in order to strengthen to independence of supervisory board members.

The Panel also recommends improving transparency standards, such as for management stock option plans and for the shareholdings of members of the management and supervisory boards, as well as increasing the duties of the management board to provide information to stockholders.

On February 26, 2002, the German Justice Ministry issued the *Combined Code on Corporate*

<sup>4</sup> "The Milk Just Keeps on Spilling," *Business Week*, January 26, 2004, pages 54-58.

*Governance* (2003) that establishes recommendations which go beyond legal regulations. Under the “comply or explain” principle, both the Supervisory Board and the Management Board must declare annually whether these recommendations have been met and the disclosure must be made available to the shareholders. The Management Board must state in the notes to the financial statements that the compliance statement has been given and made available to the shareholders (Institut der Wirtschaftsprüfer 2003). While German companies are not required to have audit committees, the Code does recommend that the Supervisory Board should set up an audit committee.

### Evolutionary Change

Recent trends indicate an increased reliance by German companies on equity financing through both domestic and international capital markets as a result of increased cross-border merger and acquisition activity. The resulting broadening of the shareholder base in German companies has created a subtle shift towards an equity culture. Privatization of state-held ownership interests in companies such as Deutsche Telekom and the maturing of family-owned companies’ need for capital have led to growth in the number of shareholders (both domestic and foreign) in German companies from 3.2 million at the end of the 1980s to about twice that amount today (Siebert 2004, 23). This increase in shareholding and the participation by individuals directly or through intermediaries such as pension funds is expected to continue in the future. The result may be to exert financial market-type pressures on the corporate governance system creating conflicts between the interests of public investors and German cultural traditions such as collectivism in decision-making and uncertainty avoidance.

While one might expect Germany’s emphasis on employee rights in corporate governance to increase agency costs, Jackson et. al. (41) argue this might not be the case “because work councils may work in coalition to promote greater accountability and thereby actually decrease agency costs by monitoring managerial pay, fighting for transparency,...and also siding with shareholders in corporate restructuring.”

### Differences in corporate governance systems

The Sarbanes-Oxley Act should be viewed as a first step in bringing about improved corporate governance in the U.S. Given the movement toward internationalization of the accounting profession as evidenced by the recent adoption of a requirement in the European Union that companies doing business in the EU must use international accounting standards effective in 2005, the time is right to turn our attention to the convergence of corporate governance systems.

### Compliance with Sarbanes-Oxley outside the U.S.

The SEC eliminated a potential conflict for German companies in complying with the Sarbanes-Oxley Act by allowing non-management employees to serve as audit committee members. SEC Commissioner Paul S. Atkins, in a speech to the 2<sup>nd</sup> German Corporate Governance Code Conference on June 26, 2003, noted that while these employees would often not meet the SEC’s definition of independence, the Commission “has no interest in creating conflicts with local law, especially when these employees actually represent non-management interests.”

To facilitate compliance with the Act by non-U.S. issuers, the SEC made two accommodations regarding the relationship between the audit committee and external auditor.

One is to allow shareholders to select or ratify the selection of auditors and the other is allowing alternative structures such as boards of auditors to perform auditor oversight functions where such structures are provided for under local law. This remainder of this section outlines additional steps that are needed to further the goal of converging corporate governance systems around the world. These include:

- (1) Ensure compliance with the “best practices” of corporate governance;
- (2) Enhance shareholder democracy;
- (3) Foster employee participation in a more representative and effective governance process.

### Compliance with Best Practices

The compliance report required by the Listing Rules in the UK ensures that constituency groups are informed how the principles of the Combined Code on Corporate Governance have been applied. The following provisions of the Sarbanes-Oxley Act should be addressed in a compliance report that would be included in the annual filing of financial statements with the SEC.

- *Certification of the financial statements.* This would be an informational item reminding the public of the responsibilities of top management for the accuracy and reliability of the financial statements.
- *Management’s report on internal controls.* This also is an informational item since the report appears elsewhere in the annual filing.
- *Audit committee responsibilities.* A description of these responsibilities should include the independence of committee members, its oversight of the financial reporting process, and any important communications with the external auditors that reflect management’s receptivity to recommended changes in the accounting principles and financial reporting practices.
- *Management Remuneration.* The following issues should be addressed in the compliance report or



in a separate report made by the compensation committee.

- Whether there have been any loans to top executives during the year; and any other form of compensation or business relationship with top executives that might qualify as a related party transaction.

### Shareholder Democracy

The following recommendations should help to enhance shareholder interests by strengthening governance systems.

- Separate out the dual roles of chair of the board and CEO. This feature has been adopted in the UK and seems to be an essential requirement of promoting independent oversight.
- Limit the number of boards on which a person can serve. Given the increased responsibility of boards of directors and, especially, audit committees, an individual should not serve on more than five boards.
- Recognize the right of stockholders to nominate directors. The SEC proposal makes it easier for shareholders who are dissatisfied to nominate their own candidates but it does not recognize it as a basic right – a right that should exist by virtue of the shareholders ownership interest in the corporation.
- Give shareholders a more direct role in board oversight. Shareholder representatives should be given the right to become actively involved in overseeing how the company is run by being allocated a number of seats on the supervisory board that would appoint the executive board as explained below.

### Employee Participation in Corporate Governance

A two-tier board system should be established, such as the one in Germany, to facilitate employee participation in decision-making, help to manage the information flow, and improve board efficiency.

#### Supervisory Board

The supervisory board should include an equal number of shareholder and employee representatives. A minority of the total membership should be divided equally between insiders and outsiders. The primary responsibilities of the board should be to:

- Appoint and dismiss members of the management board;
- Determine management remuneration;
- Review and approve the compliance report;
- Review and approve accounting principles and the financial statements;
- Work with the external auditors on matters relating to the financial reports; and
- Establish committees as needed to carry out these and other responsibilities including the nominating committee, remuneration committee,

audit committee, and employee development and retirement committee.

### Management Board

Representation on the management board should consist of members of top management, including the CEO, CFO, and chief operating officer. Other members should be independent of management. An independent member of the board should serve as its chair. The primary responsibilities of the management board would include:

- Prepare the financial statements and management report;
- Monitor the internal control system including risk assessment;
- Report to the supervisory board on operational strategies and major questions about corporate planning, financial and investment activities, and human resource issues;
- Report to the supervisory board the profitability of the business particularly the return on equity;
- Report to the supervisory board on business development.

### Concluding comments

The EU experience with failures at BCCI and Parmalat brought to light weaknesses in member countries' corporate governance systems. The changes that have been implemented in countries such as Germany and the UK are, for the most part, consistent with requirements of the Sarbanes-Oxley Act. Also, the SEC has adopted an accommodating stance with non-U.S. firms enabling them to apply for exemptions because of conflicts with local law. Still, the U.S. has much to learn from corporate governance systems followed in the UK and Germany. Shareholders are concerned about good corporate governance because of its connection to their expected returns. Employees consider employee governance to be an essential component of employment security. Management's goal should be to develop the systems that enhance employee participation and contribute toward improving long-term share value.

A dual board approach to corporate governance adds needed checks and balances to help ensure the integrity of the process and monitor whether the corporation pursues its strategic objectives in an ethical manner. A corporate governance system based on these principles would build on the positive changes already made since Sarbanes-Oxley, and it better represents the interests of those who provide the capital and labor inputs so essential to success.

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## THE EFFECT OF PRIVATIZATION AND GOVERNMENT POLICY ON COMPETITION IN TRANSITION ECONOMIES\*

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### Abstract

Recent studies have emphasized how important a role competition is for enterprise productivity in Eastern Europe and Central Asia. This paper looks at the effectiveness of government policy in promoting competition in these countries. Improving enforcement of competition law and reducing barriers to trade increase competition. Firms are considerably less likely to say that they could increase prices without losing many customers when competition policy is better enforced and when tariffs are lower. In contrast, there is little evidence that privatization increases competition in of itself. State-owned enterprises face no less competition than other enterprises and the overall level of competition is no lower in countries with more state-owned enterprises. Although privatization might have other benefits, there is little evidence that it will increase competition unless governments take complementary actions such as reducing trade barriers or enforcing competition laws.

**Keywords:** Privatization, Competition Law, Competition, Trade Policy

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### Introduction

Many studies of the transition economies of Eastern Europe and Central Asia have found that competition plays a vital role with respect to enterprise productivity. A recent meta-analysis of firm-level studies in transition economies concluded that increased competition results in improved productivity (Djankov and Murrell, 2002). Furthermore, the effect of competition is large. Using firm-level data from four transition economies, Bastos and Nasir (2004) find that competition affects firm performance more than the quality of infrastructure, corruption or the burden of regulation.

Although this suggests that governments should promote competition, competition is an outcome of policy not a direct policy in itself. That is, although government policies affect competition, governments do not directly control it. So what can governments do to promote competition? Reducing trade barriers is probably the least controversial policy prescription: there is a strong consensus that trade liberalization increases domestic competition (see Tybout, 2003). The effectiveness of direct government policies to promote competition, such as competition law, is more controversial. When competition laws are poorly enforced or competition policy is heavily politicized,

they might have a minor, or even negative, impact on competition.

Other less direct policies might also be important. It is often asserted that privatization can encourage competition—due to soft budget constraints and other government protection, state-owned enterprises can avoid competitive pressure. In addition to affecting productivity directly, privatization might therefore also increase productivity by increasing competition.

Government policies that discourage firm entry and exit also affect competition. If new enterprises are unable to get financing or the bureaucratic procedures to start a business are particularly burdensome, new businesses might be discouraged from entering the market, resulting in less competition. Similarly, if bankruptcy procedures are burdensome or governments prop up failing firms through subsidies or by allowing companies to run arrears, failing firms will fail to exit the market. As a result, resources will not be reallocated to their most productive uses and competition might suffer.

Using enterprise-level data from 27 low and middle-income countries in Europe and Central Asia, this paper assesses how much government ownership, competition policy, trade policy and other aspects of government policy—including barriers to entry and financial sector development—affect competition. As

expected, the empirical results show that competition is greater in countries with more effective competition policy and lower barriers to trade. However, other aspects of policy are also important. In particular, access to finance appears to play an important role in promoting competition. In contrast, there is little evidence that competition is greater in countries where it is less burdensome to create a new business or in countries that have made more progress with privatization.

### **The Impact of the Ownership and Policy on Competition**

Many aspects of government policy affect domestic competition. In the transition economies, privatization is often thought to be one of the most important policies for promoting competition. If governments use state-owned enterprises to provide jobs or subsidies to their supporters (Shapiro and Willig, 1990; Vickers and Yarrow, 1991), state-owned enterprises will be unable to compete in competitive markets. To keep operating, they will therefore need subsidies, government guaranteed debt to cover their losses, or direct protection from competition. This can be provided by making entry more difficult or restricting international trade (Boycko and others, 1996; Shleifer and Vishny, 1994). Policies that promote private ownership might therefore be an important element of competition policy in the transition economies. Another area of government policy that affects competition is competition law. Although the goals, approach and scope of competition law vary between countries, the primary goal is to maintain and encourage competition and to prevent firms from controlling markets. But even in industrialized economies, there is debate over whether these laws are successful. Based upon a survey of existing work and some new empirical work on the effect of mergers on price markups, Crandall and Winston (2003, p. 4) conclude that there is 'little empirical evidence that past [anti-trust policy] interventions have provided much direct benefit to consumers or significantly deterred anti-competitive behavior' in the United States.

The effectiveness of competition law is even more controversial in the transition economies, where it is perceived to be less effective than in high-income economies. A recent survey (World Economic Forum, 2002) asked enterprise managers about the effectiveness of anti-monopoly policy in their country, giving a score on a 7-point scale where 1 meant 'lax and not effective at promoting competition' and 7 meant 'effective and promotes competition'. The average score in the transition economies of Europe and Central Asia was 3.4, the average score in high-income OECD countries was 5.1

Empirical studies that have looked at the effectiveness of competition law in low and middle income countries have reached mixed conclusions. A cross-country study of competition law in 42

developed and developing countries found little evidence that competition law directly affected price markups, which were no lower in countries with competition laws in place than they were in other countries (Kee and Hoekman, 2003). However, a second study that looked at the impact of competition policy in Eastern Europe and Central Asia concluded that enterprises were more likely to have no competitors when competition law was weak or poorly enforced (Vagliasindi, 2001). One difference between these two papers, other than the choice of dependent variable, is that whereas the first simply uses a dummy variable indicating whether the country had a law or not, the second uses a broader measure that takes implementation into account.

Privatization and competition law are not the only ways that government policy might affect competition. Whereas competition law is generally intended to prevent firms from gaining control of markets, other government policies reduce competition. One notable way that governments do this is by preventing or making it more expensive for foreign goods to be sold on the domestic market. Tariff and non-tariff barriers to international trade make it more costly for foreign firms to enter domestic markets and consequently reduce competitive pressure on domestic firms. Many studies have found results that are consistent with the idea that trade restrictions reduce competition. Hoekman *et al.* (2001) conclude, based upon a cross-country analysis of 41 developed and developing countries, that average price markups are lower in countries with greater import penetration. Kee and Hoekman (2003) reach a similar conclusion.

Government policies that restrict entry can also reduce competition. In some cases, governments restrict entry by awarding legal monopolies. In other cases, government policies increase entry costs, reducing the number of new entrants. In most countries, firms have to fulfill government requirements such as registering with tax and statistical agencies, obtaining operating licenses, or publishing the company's articles of association in an official journal before they can start operating. When the cost of meeting these regulatory requirements is high—as it can be in many transition economies—the requirements might reduce competition. Business registrations costs are high in many transition economies. Whereas it takes only about 31 days and costs only about 10 percent of per capita GNI on average to register a business in high-income OECD countries, it takes 48 days and cost 22 percent of GDP in Eastern Europe and Central Asia (World Bank, 2003). Formal entry restrictions, however, are not the only government policies that might deter entry. When access to finance is difficult, new enterprises might find it difficult to get the financing they need to start operations and existing firms might find it difficult to expand their operations. In this way, weak financial sector performance can undermine competition in the real sector of the economy. Similarly, if firms are unable to get utility

connections, this might prevent new firms from entering and existing firms from opening new plants or expanding their operations. Finally, when poorly performing firms are propped up by government subsidies, inefficient firms will fail to close down. As a result, capital will not be allocated to its most efficient uses and competition might be reduced.

In summary, many aspects of the government policy affect domestic competition. In addition to the obvious areas such as privatization, competition law and trade policy, government policies that promote financial sector development, that reduce entry and exit restrictions and that allow firms to gain access to utility services might also be important.

## Empirical Methods and Results

### Data

The data used in this study is enterprise-level data from 27 countries in Eastern Europe and Central Asia. The European Bank for Reconstruction and Development and the World Bank collected the data in 2002 for the Business Environment and Enterprise Performance Survey II (BEEPS II). Enumerators interviewed firm managers in face-to-face meetings that were administered in a uniform way across countries. Firms were randomly selected, with quotas to ensure that they were broadly representative of the country's economy. To ensure comparability between firms, and since we are interested in the effect of trade policy, we restrict the sample to manufacturing firms. This data is supplemented with additional data from the World Bank and the European Bank for Reconstruction and Development. Tariff data is obtained from the UNCTAD TRAINS database. Means of the dependent and independent variables are presented in Table 1.

### Econometric Approach

To look at the effect of the policy on competition, we estimate the following equation:

$$\text{Competition Index}_{ijk} = \delta_1 \text{tariff}_{jk} + \partial_2 \text{competition policy}_j + \partial_3 \text{Policy}_{jk} + \beta x_{ijk} + \gamma_j + \lambda_j + \eta_k + \varepsilon_{ijk} \quad (1)$$

The competition index used in the analysis is an index representing the amount of competition that firm  $i$  in country  $j$  and sector  $k$  faces. Higher values on the indices represent higher levels of competition. The index represents that amount of *domestic* sales that the enterprise manager believes the firm would lose if it raised prices by 10 percent in real terms, while its competitors did not. A "1" on this 4-point scale means that the manager believes that the firm would not lose any sales, while a "4" means that the manager believes that many of its customers would buy from its competitors instead.

This variable is a limited dependent variables that take four distinct values. Since the numbers are rankings, but are not count data, the equation is estimated as an ordered Probit model (i.e., it is

assumed that the error term,  $\varepsilon_{ijk}$ , has a normal distribution). One concern is that error terms might be correlated for enterprises within the same country. Since this can result in the standard errors appearing to be artificially small, it can inflate the t-statistics, especially on country level variables (Moulton, 1986). To control for this, results are presented using Huber-White standard errors, allowing error terms to be correlated within countries (i.e., with 'clustered' standard errors).<sup>1</sup>

The main variables of interest are the variables describing government policy. To control for trade policy, the regressions include the tariff rate,  $\text{tariff}_{jk}$ , which is the average tariff rate for industry  $j$  defined at the 4-figure ISIC level in country  $k$ . Higher tariffs mean that the company is better protected from competition from imports in the domestic economy. In addition to this, the regressions also include a variable representing competition policy, the *EBRD competition policy index* (European Bank for Reconstruction and Development, 2003). Higher values on this index represent fewer barriers to entry and better enforcement of stronger laws. Because the variable is defined at the country level, the index has to be omitted when country dummies are included in the analysis.

The analysis also includes a country-level variable representing the number of days to register a new business and a country level variable representing progress with privatization. To the extent that excessive registration procedures discourage firm entry, we might expect competition to be less in countries with restrictive business registration procedures. This variable comes from the World Bank's Doing Business database (World Bank, 2003). It is calculated by compiling a list of all procedures that an entrepreneur has to complete (e.g., obtaining permits and filing with all requisite government agencies) and calculating the money and time costs of complying with these procedures. They are calculated for a standard business that performs general industrial or commercial activities (e.g., no foreign trade, no special environmental procedures, and no products subject to special tax regions). It is only available at the country-level and, therefore, is omitted when country dummies are included. The progress with privatization index is similar to the index of competition policy (European Bank for Reconstruction and Development, 2003). High values indicate greater progress. The variables also include a series of additional variables representing different aspects of policy in these countries. Since many policies might affect competition and because many are missing for some firms and tend to be highly correlated, we use principal component analysis to combine multiple variables into several indices. The indices are:

*Finance Index.* This variable represents the enterprises' access to financing. In general, we would

<sup>1</sup> See Huber (1967) and Rogers (1993).

expect competition to be greater when access to financing is easier. If efficient firms are unable to get loans to expand their production, and new firms are unable to get access to start-up funds, then existing firms will generally face more modest levels of competition.

This variable is constructed using principal components analysis to combine three variables: the percent of investment financed through retained earnings, a dummy variable representing whether the firm has a bank loan, and the percent of working capital financed through trade credit. Access to financing is worse when firms have to finance investment through retained earnings and are unable to get bank loans. Higher values on the index represent greater access to credit.

*Soft Budget Constraint Index.*<sup>2</sup> This variable represents the softness of the budget constraint. In general, government subsidies that allow inefficient enterprises to keep operating will have a negative impact on competition. Efficient firms will be unwilling to expand their operations and new firms will be discouraged from entering. The index is constructed using principal components analysis, combining two variables: enterprise arrears as a percent of sales and government subsidies as a percent of sales. Higher values on the index represent softer budget constraints.

*Infrastructure Index.* This variable represents the time it takes to get connected to water, telephones, and electricity. If it takes a long time to get utility service, new entrants might find it difficult to start operating and existing firms might find it difficult to expand their operations. This variable is constructed using principal components analysis to combine three variables: days to get a telephone connection, days to get a power connection, and days to get a water connection.

Higher values mean longer delays. Because firms only answer these questions if they have tried to get a connection within the past two years, this variable is only available for a small number of firms. To avoid losing firms, this variable is calculated as an average over all firms in the same region, country, and sector.

*Burden of Regulation.* This variable represents the burden of regulation on the enterprise. It is less clear that this will have a significant impact on competition than the other variables. Although burdensome regulation might make all firms less efficient, it is unclear that it would result in less competition. However, it seems plausible that regulation might impact some firms, especially small firms and new entrants, more than others potentially resulting in less competition. This variable is constructed using principal components analysis to combine three variables: the percent of senior management time spent dealing with government officials, inspections and regulations; unofficial or irregular payments to

government officials; and an index representing how easy it is to get information on laws and regulations. Higher values on the index mean more burdensome regulation. A serious concern about these variables is that they might be endogenous. For example, enterprises that are particularly efficient may be less worried about competition and, if they are more profitable on average, might have better access to finance. To control for the potential for reverse causation, we use the standard approach of replacing the variables with averages for all enterprises in the same sector and region of the country. This variable will be less likely to be endogenous than the enterprises' own values of the indices and is highly correlated with the enterprises' own values.

In addition to the main variables of interest, the analysis includes a series of country ( $\lambda_i$ ) and sector dummies ( $\gamma_k$ ). The country dummies are included to control for unobserved differences between countries that affect the level of competition that firms in that country face. For example, competition from imports might be less in poor countries or in countries with higher natural barriers to trade (e.g., countries that are more remote). If these characteristics were correlated with the policy variables, the coefficients on the policy variables might be biased.

In some regressions, these country dummies are replaced with a small set of country controls ( $z_i$ ). Because we have data from only 27 countries, only a relatively modest number of country controls can be included at a time. The country level controls are per capita GDP, size and population (to proxy for natural barriers to trade).

Because the country dummies control for country differences more completely than the country controls, these results are generally preferable to the results including country controls for variables such as tariff levels that are not defined at the country level. The sector dummies are included to control for sector characteristics that might affect the level of competition in the sector. For example, sectors characterized by greater economies of scale might be less competitive than other sectors. To the extent that policy makers take this into account when setting tariff rates (e.g., if they tend to protect large firms that can better lobby for protection), the results might be biased if these variables were omitted.

In addition to these variables, the regressions also include a series of enterprise-level controls ( $x_{ijk}$ ). The enterprise level controls include dummies indicating that the firm is partly foreign-owned, partly government owned, a de novo private enterprise (as opposed to a privatized enterprise), number of workers (as a proxy for size) and a dummy indicating that the enterprise exports.

The variable of most interest is the variable representing government ownership—if governments protect state-owned enterprises from competition, state-owned enterprises should face less competition than similar private enterprises.

<sup>2</sup> Vagliasindi (2001) finds that hardening budget constraints increases competition.

## Econometric Results

*Average Tariff Rate.* Enterprises were more likely to report that they would lose domestic sales to their competitors if they raised domestic prices by 10 percent and their competitors did not in countries where tariffs are lower. The coefficient on tariff rates – at the 4-figure ISIC industry level – is statistically significant and negative in all models (see Table 2). The dummies and controls are included to capture country-level differences that might affect the level of competition in the country as a whole. The regressions also include a set of sector dummies, also at the 4-figure ISIC industry level, to control for sector differences (e.g., related to economies of scale in the sector that might affect the level of competition in the sector). The parameter estimates suggest that the impact of tariff reductions is modest. If tariffs were set at the median level for the sample for all goods (10.5 percent), the parameter estimate suggest that the average probability that an enterprise in the sample would report that they would expect that many of their customers to switch to their competitors if they raised prices by 10 percent and their competitors did not was 27.7 percent.<sup>3</sup> If tariffs were uniformly set at level of the 80<sup>th</sup> percentile (18.3 percent), the average probability would be 25.1 percent. If tariffs were uniformly set at the level of the 20<sup>th</sup> percentile (5 percent), the average probability would be 29.4 percent. Increasing a uniform tariff from 5 percent to 18.3 percent would therefore reduce the probability that the enterprise would lose many of its customers by 4.3 percentage points – about a 15 percent reduction.

*EBRB competition policy index.* Enterprises were also more likely to report that they would lose customers to competitors if they raised domestic prices by 10 percent and their competitors did not in countries where competition law is established, policy is better enforced, and entry by new firms is easier. The coefficient on the competition policy index is positive and statistically significant at conventional significant levels (see column 2 of Table 2). This indicates that competition is greater where competition law is better enforced and entry restrictions have been eased. Since the index of competition policy is defined at the country-level, it has to be omitted when country dummies are included in the regression (i.e., it is collinear with the country dummies).

The parameter estimates also suggest that improving competition policy has a reasonably large impact on competition. If the competition policy index was set at the median level in all countries (2.3 on the

4.0 index), the parameter estimate suggest that the average probability that an enterprise in the sample would report that it would expect that many of its customers to buy from its competitors if it raised prices by 10 percent and their competitors did not was 27.2 percent. If the index were set at the level of the 20<sup>th</sup> percentile (2.0), the average probability would be 25.3 percent. If it were set at the level of the 80<sup>th</sup> percentile (2.7), the average probability would be 29.9 percent. Increasing the quality of competition policy from the level observed in Georgia or Russia (2.0) to the level observed in Estonia or Slovenia (2.7) would increase the average probability that an enterprise would expect to lose many customers to its competitors if it raised prices by 10 percent by 4.6 percentage points – about an 18 percent increase.

One concern about the competition policy index is that although it is based partly upon objective criteria (i.e., whether competition legislation is in place), it is partially subjective (e.g., the difference between a ‘3’ and a ‘4’ is based on the difference between ‘some enforcement’ and ‘significant enforcement’).<sup>4</sup> This might be problematic if the actual level of competition in the economy affects perceptions about competition policy. To see if the results are robust to the inclusion of a more objective measure of competition policy, we replace the index with an objective measure of anti-merger law based upon the measure of merger notification requirements described in Nicholson (2003), with higher values representing stricter laws.<sup>5</sup> When this variables is included in place of the competition policy index, the coefficients on the competition law index is positive—indicating that domestic price competition is greater in countries with stricter anti-merger laws. However, the coefficient is only statistically significant at conventional levels in one of the two regressions (when the enterprise’s individual measure of access to finance is included instead of the sectoral/country average). One possible interpretation of this weaker result might be that the enforcement of policy matters as much as the formal content of the law.

*Privatization and State-ownership.* There is little evidence at either the macroeconomic level or at the enterprise level that state-ownership reduces competition. The coefficients on the dummy variable indicating state-ownership and the index of privatization are both statistically insignificant. This suggests that competition is no less for individual state-owned enterprises and that the overall level of privatization does not impact the overall level of competition in the economy.

<sup>3</sup> The average probabilities are calculated using the coefficients from Table 2, column 2. For each enterprise in the sample, the probability that the enterprise would report that many customers would buy from their competitors instead if they increased prices by 10 percent is calculated replacing the actual tariff rate for that sector and country by the sample median, the 80<sup>th</sup> percentile tariff rate, or the 20<sup>th</sup> percentile tariff rate.

<sup>4</sup> The 2003 Transition report states ‘[t]he classification system is a stylized reflection of the judgment of the EBRD’s Office of the Chief Economist.’ See European Bank for Reconstruction and Development (2003).

<sup>5</sup> The index is coded as “0” if the country has no merger notification law, coded as “1” if merger notification is voluntary, coded as “2” if post-merger notification is mandatory, and “3” if pre-merger notification is mandatory. Information on notification laws was obtained from White and Case (2004)

*Access to Finance.* Improving access to finance increases domestic competition. The coefficient on the variable representing access to finance is positive and statistically significant whether country dummies or country controls are included and when other policy related variables are included. One serious concern about this variable, discussed earlier, is the potential for reverse causation. If competition reduces rents in the domestic economy, and hence reduces enterprise profits, competition might affect the enterprises' access to finance. That is, we would expect enterprises in less competitive sectors to be more profitable and, hence, to have better access to finance. Further, the most efficient and technologically advanced firms might be less concerned about competition and have better access to finance than other firms. Hence, if this were the case, we would expect the coefficient on access to finance to be negative. Because of these concerns, we replace the enterprises' own value for this index with the average value for enterprises in the same country, sector, and region. This approach has been used in several studies that have looked at the effect of the policy on enterprise behavior.<sup>6</sup> When we do this, the coefficient on access to finance increases in magnitude and remains statistically significant. The fact that the coefficient becomes more positive after controlling for reverse causation is consistent with the idea that more efficient firms face lesser competition and have better access to finance.

The parameter estimates suggest that improving access to finance would have a relatively modest impact on competition. If the access to finance index was set at the median level in all countries, the parameter estimate suggest that the average probability that an enterprise in the sample would report that it would expect that many of its customers to buy from its competitors if it raised prices by 10 percent and their competitors did not was 26 percent. If the index were set at the level of the 20<sup>th</sup> percentile, the average probability would be 25 percent. If it were set at the level of the 80<sup>th</sup> percentile, the average probability would be 26.7 percent. Increasing access to finance from the about the average level observed in Albania to the level observed in Poland would increase the average probability that an enterprise would expect to lose many customers to its competitors if it raised prices by 10 percent by 1.7 percentage points – about a 7 percent increase.

*Other Policy Variables.* In contrast to the measure of access to finance, the coefficients on the other policy variables are statistically insignificant at conventional significance levels. This is true whether the enterprise's own levels of these variables or sector averages are included. These results suggest that the burden of regulation, delays in getting infrastructure connections and soft budget constraints do not deter entry enough to have a significant impact on competition.

In addition to these measures, the regressions with country controls also include a direct measure of the cost of registering a business (World Bank, 2003). Since this variable is only available at the country-level, it can only be included when country controls are included instead of country dummies. The coefficient on this variable is statistically insignificant in both regressions with country controls.

*Other enterprise-level controls.* For the most part, the enterprise-level controls are statistically insignificant at conventional significance levels. The coefficients on enterprise size and the dummy variables for foreign-owned and de novo private (i.e., newly established private rather than privatized) enterprises were statistically insignificant in all regressions.

Firms that export tend to feel less competitive pressure than other firms—at least in domestic markets. They were less likely to report that they would lose many customers in domestic markets if they raised prices than non-exporters were. It is important to note that most exporters sell a significant portion of their output on domestic markets. The median exporter exported only about 35 percent of output and only 9 percent of exporters (5 percent of firms) exported all their output. Because exporters tend to be more efficient and technologically advanced than domestic firms that do not export, it might not be surprising they generally feel less pressure from other domestic enterprises than non-exporters do.<sup>7</sup>

*Other macroeconomic controls.* To include the country-level variables representing competition policy and the cost of business registration, the country dummies are replaced with country controls. The coefficients on the country level controls (per capita GDP, population, and area) were generally statistically insignificant. These variables were chosen as proxies for natural barriers that might affect trade. For example, large countries (in terms of area and population) might trade less than smaller countries because they have greater natural resources or because they produce a greater range of goods within their border (i.e., economies of scale).

## Conclusion

Recent studies have emphasized the important role that competition plays with respect to enterprise productivity. One recent study found that competition had a greater effect on enterprise productivity than any other area of the investment climate (Bastos and Nasir, 2004). The most obvious ways of increasing competition are to reduce trade barriers and improve competition law. The results from this paper emphasize the importance of these policies. Reducing tariffs would modestly increase competition in the transition economies of Europe and Central Asia.

<sup>7</sup> There is a large literature showing that exporters are more efficient than non-exporters. See Tybout (2003) and World Bank (2002) for recent surveys of the literature.

<sup>6</sup> See, for example, Svensson (2003).



Cutting the average tariff rate from 18.3 percent to 5 percent (80<sup>th</sup> to 20<sup>th</sup> percentile) would increase the probability that the average enterprise would say that they would lose many customers if they raised prices and their competitors did not by 4 percentage points. Improving enforcement of competition law would also increase competition. Firms were considerably less likely to say that they could increase prices without losing many customers when competition policy was better enforced. In addition to these policies, the results also suggested that improving access to financing would increase competition. If new firms cannot finance their start-up costs and existing firms cannot finance expansion, competitive pressure on other firms will be reduced. Other factors appear less important. There was no evidence that competition was greater when budget constraints were harder, when it was easier to get infrastructure connections or when the burden of regulation was lesser. There was also no evidence that registration procedures are a significant enough barrier to entry that they affect competition in the domestic economy. In contrast, there is little evidence that privatization will improve competition in of itself. State-owned enterprises do not appear to face less competition than other enterprises and the overall level of competition is no lower in countries with more state-owned enterprises. Although privatization might have other benefits, there is little evidence that it will increase competition unless governments take complementary actions such as reducing trade barriers or enforcing competition laws.

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## Appendices

**Table 1.** Sample means and standard deviations

	Variable	Obs.	Mean	Std. Dev.
Competition Index				
Index of price competition	Index (0-4)	1621	2.56	1.08
Competition Policy				
Average Tariff Rate (4-figure ISIC)	---	1518	13.49	14.47
EBRD Competition Policy Index	Index (0-4)	1487	2.21	0.55
Entry Barriers				
Days to Register a New Business	Natural Log	1584	3.70	0.46
Country Controls				
Population	Natural Log	1633	16.37	1.30
Area in Squared Kilometers	Natural Log	1542	12.27	1.77
Per Capita GDP	Natural Log	1633	7.53	0.85
Enterprise Controls				
Workers	Natural Log	1565	4.08	1.66
Any Government Ownership	Dummy	1633	0.19	0.39
Any Foreign Ownership	Dummy	1633	0.21	0.41
De novo private enterprise	Dummy	1633	0.53	0.50
Exporter	Dummy	1626	0.51	0.50

**Table 2.** Impact of trade and competition policy on competition

	Domestic price competition (High values mean more competition)					
	1184	1315	1403	1429	1128	1153
Observations						
Country Dummies	Yes	Yes	Yes	Yes	No	No
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
<b>Competition and Trade Policy</b>						
Average Tariff Rate (at 4-fig ISIC industry level)	-0.011*** (5.37)	-0.011*** (5.10)	-0.011*** (6.22)	-0.011*** (6.24)	-0.010*** (3.21)	-0.010*** (3.05)
EBRD Competition Policy Index (index - higher values mean better policy)						
<b>Policy Variables</b>						
Access to Finance (index - higher values mean greater access)	0.056** (2.15)		0.042* (1.96)		0.048** (2.27)	
Regulatory burden (index - higher values mean greater burden)	0.016 (0.44)					
Soft budget constraints (index - higher values mean greater burden)	0.046 (1.19)					
Access to Finance -- Sector Averages (index - higher values mean greater access)		0.082** (2.21)		0.102*** (3.30)		0.139*** (4.55)
Regulatory burden -- Sector Averages (index - higher values mean greater burden)		0.061 (1.32)				
Soft budget constraints -- Sector Averages (index - higher values mean greater subsidies)		0.022 (0.44)				
Infrastructure Delays -- Sector Averages (index - higher values mean greater delays)		-0.006 (0.40)				
Days to register a business (Days)					-0.024 (0.16)	-0.004 (0.03)
<b>Enterprise Controls</b>						
Workers (natural log)	-0.001 (0.04)	-0.012 (0.34)	-0.004 (0.10)	-0.019 (0.51)	0.002 (0.04)	-0.021 (0.53)
Any Government Ownership (dummy)	-0.079 (0.71)	-0.105 (1.32)	-0.021 (0.22)	-0.036 (0.42)	0.001 (0.01)	-0.004 (0.04)
Any Foreign Ownership (dummy)	0.135 (1.44)	0.095 (1.13)	0.106 (1.20)	0.079 (0.86)	0.033 (0.35)	0.002 (0.02)
De novo private enterprise (dummy)	-0.076 (0.95)	-0.134 (1.60)	-0.081 (0.94)	-0.118 (1.39)	-0.098 (1.07)	-0.135 (1.56)
Exporter (dummy)	-0.252*** (4.14)	-0.268*** (4.59)	-0.273*** (4.13)	-0.244*** (3.72)	-0.236*** (3.07)	0.200*** (2.68)
<b>Country Controls</b>						
Population (natural log)					0.026 (0.21)	0.050 (0.37)
Area (natural log of squared km)					-0.061 (0.68)	-0.083 (0.88)
Per Capita GDP (natural log -- US\$)					0.000 (0.07)	0.000 (0.05)
EBRD Privatization Index (index - higher values mean better policy)					-0.168 (1.53)	-0.160 (1.31)
Log-Likelihood	-1516.11	-1680.07	-1800.67	-1832.06	-1461.13	-1493.02

\*\*\* Sig. at 1% level \*\* Sig. at 5% level \* Sig. at 10% level. Note: Regressions are estimated using ordered probit estimation. T-statistics are in parentheses. Standard errors are Huber-White robust standard errors allowing error terms to be correlated within countries. Regressions include dummy variables indicating country and sector of operations (at 4-figure ISIC level).

## CORPORATE GOVERNANCE IN POST-SOCIALIST POLAND

*Maria Dziembowska\**

### Abstract

In this paper, I focus specifically on how changes in the legal framework shape the ownership and control structure of new and recently privatized companies in the emerging market economy of post-socialist Poland. I discuss the market for capital, which also depends on the legal system, as investors' decision to invest is bound up with the sort of protection they are likely to receive against those who appropriate their money for the operations of the firm. I argue that governmental actions aimed at stimulating investment and economic development in post-socialist Poland and the emergent model of corporate governance is conditioned both by internal dynamics - such as previous corporate arrangements and the origins of the commercial law - and by external factors - such as EU accession, directives and policies regarding investment obligations and shareholder rights.

**Keywords:** ownership, corporate control, Poland, legal system

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### Introduction

In the contemporary global business climate, domestic firms have to increasingly adapt their practices not only to national, but international regulatory and legal environments. One of the key problems that firms face in their attempt to produce and sell their products and services is how to get access to finance and ensure investor goodwill. Its solution requires legal and economic institutions that help regulate the balance between the various stakeholders of a firm and help maintain economic performance. The system which organizes these activities is known as corporate governance. To understand how firms balance the interests and motivations of the various stakeholders, it is necessary not only to analyze the structure of the capital market in the economy, but also to analyze the legal and regulatory framework of corporate governance.

In this paper, I focus specifically on how changes in the legal framework shape the ownership and control structure of new and recently privatized companies in the emerging market economy of post-socialist Poland. I discuss the market for capital, which also depends on the legal system, as investors' decision to invest is bound up with the sort of protection they are likely to receive against those who appropriate their money for the operations of the firm. I argue that governmental actions aimed at stimulating investment and economic development in post-socialist Poland and the emergent model of corporate governance is conditioned both by internal dynamics - such as previous corporate arrangements and the

origins of the commercial law - and by external factors - such as EU accession, directives and policies regarding investment obligations and shareholder rights.

The paper is organized in the following way. First, I define the concept of corporate governance and review salient empirical studies, which demonstrate that a variety of institutions of corporate governance exist across the capitalist system. I turn next to the Polish case. First, I describe the process of privatization of state-owned enterprises, paying special attention to the transformation of the corporate structure therein. Next, I look at the capital market, the Warsaw Stock Exchange, and the structure of ownership and control in publicly listed companies. Finally, I briefly discuss the external dynamics, which serve as additional factors that affect the system of corporate governance in Poland.

### Literature review

Corporate governance can be understood as a "system by which companies are directed and controlled."<sup>1</sup> Alternatively, "corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment."<sup>2</sup> Finally, "corporate governance is

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<sup>1</sup> Cadbury A. 1992. "The Report of the Committee on the Financial Aspects of Corporate Governance." Cited in: [www.pfcg.org.pl](http://www.pfcg.org.pl).

<sup>2</sup> Shleifer A., and R.W. Vishny. 1996. "A Survey of Corporate Governance." *NBER Working Paper 5554*. Cited in: [www.pfcg.org.pl](http://www.pfcg.org.pl).

concerned with minimizing the transaction costs of running firms.<sup>3</sup> These definitions create a general terminology around the concept of corporate governance.

When conceptualized more explicitly, corporate governance refers to “institutions that take care of the conflict between the interest of investors to get the ‘warranted’ return on their invested funds and the interest of ‘managers’ to exert control over the use of those funds with as little interference from investors as possible.”<sup>4</sup> The basic assumption underlying this formulation is that the interests of investors and managers are often in conflict and a firm is liable not to function effectively unless this conflict of interests becomes institutionalized and shareholder rights are protected by law and custom.<sup>5</sup>

Anrei Shleifer and Robert W. Vishny (1997) provide an excellent review of research on corporate governance from this perspective. Specifically, they ask: why do investors invest when managers have the know-how and power to divert finances?<sup>6</sup> In other words, why would investors risk handing over capital? They conclude that both legal protection of investors and some concentration of ownership are essential qualities of a good corporate governance system because these allow investors to exert control over managerial action.<sup>7</sup>

Most recent studies focus on how investors’ rights are defined by the legal system in which they operate. According to La Porta, Shleifer and Vishny (2000), corporate governance is a set of mechanisms by which “the outsiders” (external investors) protect themselves from “the insiders” (managers or controlling shareholders). They argue that differences in the legal system and its enforcement, rather than the structure of markets (e.g. presence or absence of stock market) are the key to understanding country variation in firms’ ability to raise outside capital.<sup>8</sup>

The empirical work of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) raises a number of interesting questions about corporate governance: What are the legal differences across countries? What are the mechanisms of enforcement? Do market

mechanisms or powerful interest groups influence the functioning of the corporate governance system?<sup>9</sup>

In answering these questions, La Porta et al. (1998) argue that legal tradition has a significant impact on how investors’ rights are defined by the legal system. Every legal system has historical roots in either common (Anglo-Saxon) or civil (Roman) law, the latter represented in French, Scandinavian and German variations. The common and civil law systems provide varying degrees of shareholder protection and creditor rights. In countries with civil law traditions, companies have higher concentration of ownership and that these systems ensure less effective shareholder protection. While the world average ownership of the three largest shareholders is 46 percent, in countries governed by French-inspired civil law tradition that average is 54 percent. The lowest concentration, 34 percent, is in the German-civil law countries.<sup>10</sup>

Similarly, Coffee (1999) finds that common law is better at protecting investor rights, while civil law correlates with greater state intervention and lesser protection of private property than common law. The findings of La Porta et al. (1998) also suggest that countries with Anglo-Saxon common law tradition not only protect shareholders more effectively, but also have more valuable stock markets, larger numbers of listed securities per capita, and a higher rate of IPO (initial public offering) activity than do the less protective countries. In other words, there appears to be a positive correlation between investor protection, active financial markets and economic growth.

The quality of enforcement of securities, commercial and bankruptcy laws is another factor considered in this study. Here, the authors find that Scandinavian countries have best enforcement measures, followed by German, common law and French civil law countries. In addition, richer countries have higher measures of enforcement.<sup>11</sup>

Whereas La Porta et al. isolate the civil and common law traditions as primary factors in explaining differences in corporate governance systems, Weimar and Pape (1999) use an eight-point basis to present a taxonomy of four distinct corporate governance models: the Anglo-Saxon, Germanic, Latin and Japanese models.<sup>12</sup>

On the basis of these characteristics, the authors demonstrate differences in the structure of ownership and control. For example, German banks are significant stakeholders in German corporations. In Italy and France, concentrated family-ownership and cross-holdings prevail. Similarly to La Porta et al. (1998), the authors find that ownership is less

<sup>3</sup> Mayer, C. 2000. “Oxford University Paper Written for Inaugural Lecture at Universite Libre de Bruxelles.” Cited in [www.pfcg.org.pl](http://www.pfcg.org.pl).

<sup>4</sup> Barca, F. 1997. “Some Views on U.S. Corporate Governance.” Cited in [www.pfcg.org.pl](http://www.pfcg.org.pl).

<sup>5</sup> Of course, discussion of corporate governance need not be confined to the problem of owner-controlled firms and large stakeholders. It can be generalized to model interactions among a number of different stakeholders. Berglof E., and E. von Thaden. 1999. “The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries,” mimeo. Cited in [www.pfcg.org.pl](http://www.pfcg.org.pl).

<sup>6</sup> Shleifer A., and R.W. Vishny. 1997. “A Survey of Corporate Governance.” *Journal of Finance* 52:748-750.

<sup>7</sup> Ibid, p. 738.

<sup>8</sup> La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R.W. Vishny. 2000. “Investor Protection and Corporate Governance.” *Journal of Financial Economics* 58:3-27.

<sup>9</sup> La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R.W. Vishny. 1998. “Law and Finance.” *Journal of Political Economy* 106(61):1113-1155.

<sup>10</sup> Ibid, p. 1129.

<sup>11</sup> Ibid, p. 1141. See especially Table 5, p. 1142.

<sup>12</sup> Weimer J., and J.C. Pape. 1999. “A Taxonomy of Systems of Corporate Governance.” *Corporate Governance: An International Review* 7(2):152-163.

concentrated in the United States and England. The largest five shareholders hold on average 20-25%, compared with 41% in Germany, 48% in France, and 87% in Italy.<sup>13</sup> This shows that countries differ both in terms of the type of owner (institutional vs. individual) and the degree to which ownership of equity is concentrated in the hands of few investors (e.g. Italy) or dispersed among many investors (e.g. United States).

Based on the above studies, two institutional arrangements appear especially prevalent when studying the various models of capitalism – the Anglo-Saxon “outsider” model and the Germanic “insider” model.

The Anglo-Saxon model occurs in a system of dispersed ownership, where individual shareholders’ are not able to directly influence management, except through the market, i.e. through the sale of shares as a means of exercising corporate control. Furthermore, a “one share one vote” one-tier system of board of directors typically dominates in this system. Where the Anglo-Saxon model prevails, the capital market tends to be substantial. For example, about 7,300 public companies valued at \$13.8 trillion (or 136% of GDP) are listed on the American stock market. In Great Britain, there are 1,900 publicly listed companies, valued at \$2.1 trillion in 2001.<sup>14</sup>

The German model is characterized by ownership concentrated primarily in the hands of a single stakeholder. Consequently, owners often have substantial control over the company. The Germanic model is characterized by a two-tiered system of corporate governance – the supervisory board, which elects and oversees the management board. In contrast to the Anglo-Saxon model, where owners contribute the capital (as owners of shares), banks and other financial institutions tend to be the sources of finance. Employees and stakeholders (such as banks) are often involved in the supervisory position. Finally, instead of the stock market, negotiation between management and supervisory boards serves as the medium through which corporate control is exercised.

In the transitioning post-socialist economies, the classic problems of corporate governance arose in tandem with the privatization of state enterprises. The pace and method of privatization have played a very important role in the transformation of the corporate governance system.<sup>15</sup> Internal factors, such as employee participation in privatization proceedings, and the absence of a domestic capital market have crucially influenced the path of corporate development. External factors, such as EU accession and the globalization of financial markets have also mitigated the process.

<sup>13</sup> Ibid, p. 156, 158, 159.

<sup>14</sup> Tamowicz, P., and T. Dzierzanowski. 2002. “The White Paper on Corporate Governance.” Gdansk: The Gdansk Institute For Market Economies. p. 13.

<sup>15</sup> Brada, J.C., A. Hess, and I. Singh. 1996. “Corporate Governance in Eastern Europe. Findings from Case Studies.” *Post-Soviet Geography and Economics* 37(10):590.

## Poland

The corporations sector in Poland is made up of joint-stock and limited liability companies. According to a recently published white paper, about 8,000 joint-stock companies and 150,000 limited liability companies existed in 2000, compared with 2,600 joint stock and 66,000 limited liability companies in 1992. Joint-stock companies are the basic structure of large corporations. Of the top 500 companies, 66% are joint-stock companies. They account for 78% of the revenues of the top 500.<sup>16</sup>

The organs of corporate governance are defined by the Polish Commercial Code, which originates in German civil law.<sup>17</sup> The provisions of the Commercial Code are strictly linked to Acts dealing with the privatization of state-owned enterprises (Act of July 13<sup>th</sup> 1990) and foreign investment (Act of June 14<sup>th</sup> 1991).<sup>18</sup> As in the German model, the key instrument of corporate control is the supervisory board. Polish employees (mostly the managerial cadre) and industrial strategic investors are likewise significant stakeholders in Polish corporations (though more so in the former state-owned enterprises than in new start-ups). In contrast to the German system, the participation of banks in Polish corporations is limited.<sup>19</sup>

## Privatization

The Act of July 13<sup>th</sup> 1990 on the Privatisation of State-Owned Enterprises established the principles and standards for transforming the 8,000+ state enterprises into private firms.<sup>20</sup> Privatization, and in particular the laws that implemented it, granted workers the opportunity to purchase shares at discount prices and in a substantial number of procedures made the provision for them to become employee-owners. The Act of July 13<sup>th</sup> 1990 provided a number of measures that appeared to reflect both the conviction that privatization should proceed swiftly and include minimal state involvement, but also the possibility for

<sup>16</sup> Tamowicz, P., and T. Dzierzanowski. 2002. “The White Paper on Corporate Governance.” Gdansk: The Gdansk Institute For Market Economies. p. 17.

<sup>17</sup> Coffee, J. 1999. “Privatization and Corporate Governance: The Lessons from Securities Market Failure.” *SSRN Working Paper*. P.34.

<sup>18</sup> The Commercial Code also includes: the 1926 law on restricting unfair competition; the bankruptcy law of the 1936 Decree of the President of the Republic of Poland; the law on settlement procedures from the Decree of the President of the Republic of Poland of 1934.

<sup>19</sup> Koladkiewicz, I. 2001. “Building of a Corporate Governance System in Poland: Initial Experiences.” *Corporate Governance: An International Review* 9(3):228-237.

<sup>20</sup> In 1990, there were 8,453 state enterprises on the state register. By the end of 1999, 4,957 underwent the process of ownership transformation. Among them: 1,454 were commercialized, 1,727 were privatized through direct privatization and 1,641 were designated for bankruptcy. Polish Ministry of Treasury. 2000. “Report on Ownership Transformation in 1990-1999.” [CD-ROM.] Warsaw: Poland.

workers to shape the process.<sup>21</sup> It reflected the political compromise between those in government that advocated the explicit economic objectives of privatization (i.e. the need to improve the economic effectiveness of the enterprises) and those who had the realization of social goals in mind, i.e. that privatization should consider workers as the main participants in this process.<sup>22</sup> It also reflected the underdeveloped state of the capital market and relative absence of strategic investors willing and able to purchase state assets.

State owned enterprises have been privatized primarily through two methods. Most large state enterprises participated in indirect privatization, wherein they undergo a process of commercialization, i.e. they are transformed into sole shareholder companies of the Ministry of Treasury. Subsequently, they are sold to a strategic investor or through an IPO. In direct privatization, state enterprise assets are liquidated and transferred to a firm set up by the liquidated enterprise's employees. The resulting ownership and control structure is largely made up of workers and managers of the former state enterprise.<sup>23</sup> Thus, the mix of owners in Poland has been quite diverse, including former enterprise managers, non-managerial employees and foreigners.

The Act of July 13<sup>th</sup> 1990 replaced the 1981 Law on State Enterprises and with it the mandatory provision for the existence of Workers' Councils. The new structure replaced the socialist model, composed of the managing director, the Workers' Council, and the general assembly of employees as mandated in the 1981 Law on State Enterprises. Workers' Councils effectively ceased to exist, in many cases to make room for a new corporate governance structure, generally composed of an executive management board, supervisory board and general assembly of shareholders.<sup>24</sup>

Prior to their dissolution, the councils in consultation with the managing director and with approval of the workforce had the power to initiate and veto privatization proposals of their firm. In addition, workers had the right to receive up to 20% of the shares in the privatized firm at discounted prices. As shareholders in the private firms, workers gained

the right to receive part of the profits of the enterprise distributed annually. They exercise their authority in management through the shareholders' assembly, which under the new commercial code elects the supervisory board, whose members in turn chose the board of directors, including the president.<sup>25</sup> Therefore, in being granted preferential access to shares, workers gained the right to express their views through the shareholders meeting and when they sat as members of the supervisory board.

Workers' ownership turned out to be a transitory phenomenon. Workers sold their shares to outsiders and to members of the boards during the first decade of privatization. As the table below shows, between 1990 and 1999, workers as a group ceased to be the dominant shareholder (see Table 1).<sup>26</sup> Whereas, at the beginning of 1990s, rank-and-file employees had a clear ten-point advantage in terms of shareholding, in the absence of institutions that would have helped workers create a collective shareholding bloc, insider elites (middle and upper management and members of supervisory boards) gained the 10-point advantage in share equity by 1999.

This observed change in the ownership structure during the period of 1990-1999 became especially pronounced after the implementation of the Act of August 30<sup>th</sup> 1996 on Commercialization and Privatisation of State Owned Enterprises, which replaced the Act of July 13<sup>th</sup> 1990. While the new law increased the participation of employees in the supervisory process by allowing them to choose 2/5 of the supervisory board, it also made it easier for outside investors to buy shares in the privatized enterprises.

Thus, changes in the legal framework reflected the tradition of Workers' Councils, the strong historical role of the Solidarity trade union and the social support for employee ownership and involvement in corporate decision-making. However, they also reflected concessions made to increase foreign investment and the need to stimulate the market for capital by diversifying the corporate ownership structure.

Privatization laws granted ownership rights to former state enterprise employees and to foreign

<sup>21</sup> For example, the law created the Ministry of Ownership Transformation as a centralized organization in charge of all privatizations. At the same time, Worker's Councils were given the right to initiate privatization or the right to veto privatization proposals presented by the Ministry or outside investors. See Frydman R., A. Rapaczynski, and J.S. Earle. 1993. *Privatization Process in Central Europe*. Budapest: CEU Press, p. 177.

<sup>22</sup> Blaszczyk, B., and R. Woodward, eds. 1999. "Privatization and Company Restructuring in Poland." Warsaw: Center for Social and Economic Research.

<sup>23</sup> For more detailed description of the various paths of privatization, see Polish Ministry of Treasury. 2000. "Report on Ownership Transformation in 1990-1999." [CD-ROM.] Warsaw: Poland.

<sup>24</sup> Federowicz, M. and A. Levitas, "Poland: Councils Under Communism and Neoliberalism" in Streek W. and J. Rogers, eds. (1995) *Works Councils. Consultation, Representation and Cooperation in Industrial Relations*. Chicago and London: University of Chicago Press.

<sup>25</sup> Blaszczyk, B., and R. Woodward, eds. 1999. *Privatization and Company Restructuring in Poland*. Warsaw: Center for Social and Economic Research, p. 30. The results of their empirical research suggest, as might be expected, that actual practice differed from the rules set forth in the code. For instance, they found that often the president of the company who was chosen by the supervisory board, in turn chose the remaining members of the board of directors.

<sup>26</sup> Calculations based on Gardawski, J., "Kształtowanie się grup właścicielskich w sprywatyzowanych przedsiębiorstwach" in Maria Jarosz .2000. *Dziesięć Lat Prywatyzacji*, Warsaw: ISP-PAN. Blaszczyk and Woodward (1999) find similar results in firms that were not privatized directly by employees, but which instead granted the workforce 20% of the shares in the private firm at half the purchase price. In their research they find that the average shareholding among rank-and-file workers is between 1 and 7.5%, down from the 20% initially distributed. Blaszczyk, B., and R. Woodward, eds. 1999. *Privatization and Company Restructuring in Poland*. Warsaw: Center for Social and Economic Research, p. 30.

investors. Three additional measures extended ownership to institutional investors.

Beginning in 1993, ownership of enterprises was expanded to include government controlled national investment funds. Most recently, the Act of August 28<sup>th</sup> 1997 on Investment Funds and the Act on Organisation and Functioning of Retirement Pension Funds allowed pension funds to acquire equity in private enterprises. According to the law, all employees born before 1969 are obligated to contribute a fixed percentage of their salary, a portion of which goes to private pension funds. By 2002, this measure has produced funds totaling around \$6 billion. Of the total, 40% can be invested directly in private equities.<sup>27</sup> In 2001, the biggest participants were: Commercial Union, Ing Nationale and PZU Zlota Jesien.

The program of National Investment Funds (NIF) was launched in 1995 as part of the Mass Privatization Program. Fifteen funds were set up as joint-stock companies. The funds were responsible for managing and restructuring 514 state companies.<sup>28</sup> The ownership of companies participating in the program was shared by the funds, the State Treasury and employees of the companies.<sup>29</sup> The NIFs continue to be controlling shareholders in a number of publicly listed companies.

The Act of February 3<sup>rd</sup> 1993 on Financial Restructuring of Banks and Enterprises marked another attempt to stimulate the sale of state assets and private investment. The Act of February 3<sup>rd</sup> 1993 allowed banks to be company owners. Initially, domestic banks were given a lending ceiling by the Ministry of Finance, but most enterprises could not repay the loans.<sup>30</sup> As the share of poor credits rose to 30-40% of most bank loans, the government permitted firms to swap debt for equity. This effectively led to banks becoming even more stringent with their credit terms. The general state of undercapitalization due to tight credit led the Polish government to seek alternative sources of finance for restructuring and capital accumulation.

A decade later, it appears that the pension funds and government sponsored National Investment Funds are significant drivers of change in strengthening and enforcing shareholder protection in Poland.<sup>31</sup> As

indicated above, employee ownership did not become an important component of the corporate governance system, despite significant employee privileges. Individual investors have limited impact on the corporate governance mechanisms. They attempt to influence particular decisions (including supervisory board composition) by combining under the Association of Individual Investors, which strives to involve individual investors in the companies' general meetings.<sup>32</sup> Other means of exercising control of managers include performance-related remuneration, hostile takeovers and managerial stock option plans. Institutional investors exercise corporate control through forging alliances to change supervisory board members or to assign a special auditor.<sup>33</sup> The State Treasury is also a significant player in the ownership and control of Polish companies. In 2002, the state (in the capacity of the State Treasury) held shares in 585 companies, 803 entirely state-owned. The State Treasury plays an active role on state-owned companies' supervisory boards.<sup>34</sup>

### Public corporations

The privatization methods have occurred in tandem with the development of the capital market. The capital market was re-established with the Act of March 22<sup>nd</sup> 1991 on Public Securities Trading and Trust Fund Law (later replaced by Act of August 21<sup>st</sup> 1997 on Public Securities Trading Law). Since its reopening on April 16<sup>th</sup> 1991, the Warsaw Stock Exchange (WSE) has become one of the largest European exchanges (The Warsaw Stock Exchange is a joint-stock company owned by the State Treasury and 48 banks and brokerage houses).

According to Table 2, there were 230 companies listed on the WSE with a current market value of 2.9 billion PLN. Fourteen NIFs are listed on the stock exchange. Trading on the WSE is highly concentrated, with 14% of all companies accounting for 85% of the total capitalization (Ibid, p. 19.)

In most public corporations ownership and control are held by a single controlling shareholder. In the absence of shareholder protections, the concentrated ownership may be a way to monitor managers. There appears to be a connection between the Polish legal system and the emerging model of corporate governance.<sup>35</sup>

<sup>27</sup> "Corporate Governance in Poland: Minority protection," *The Economist*, May 4, 2002, p.80.

<sup>28</sup> Until 2001, the NIFs sold their stakes in 325 of the 514 firms. Tamowicz, P., and T. Dzierzanowski. 2002. "The White Paper on Corporate Governance." Gdansk: The Gdansk Institute For Market Economics, p. 18.

<sup>29</sup> Employee ownership (employees were entitled to acquire 15% of their companies free of charge) has decreased steadily over the period.

<sup>30</sup> Koladkiewicz, I. 2001. "Building of a Corporate Governance System in Poland: Initial Experiences." *Corporate Governance: An International Review* 9(3):232.

<sup>31</sup> As mentioned above, the major difference between the German and the Polish model of corporate governance is the notable absence of banks in the corporate structure of Polish firms. However, other financial institutions, such as pension funds in Poland appear to perform a similar function to the banks in Germany.

<sup>32</sup> Tamowicz, P., and T. Dzierzanowski. 2002. "The White Paper on Corporate Governance." Gdansk: The Gdansk Institute For Market Economics, p. 26.

<sup>33</sup> Ibid, p. 25.

<sup>34</sup> Ibid, p. 31.

<sup>35</sup> This observation is in line with the argument presented by La Porta et al. (1998) and summarized above. I am grateful to Professor Jacoby for bringing this to my attention.



**Table 1.** Changes in ownership structure of firms privatized by leasing state assets to company formed by employees, 1990-1992, 1997 and 1999

Shareholders	At point of privatization (1990-1992)	In 1997	In 1999
External strategic investor	3.1	6.0	9.1
Non strategic investors (domestic)	4.6	8.0	17.4
Non strategic investors (foreign)	-	0.1	-
Supervisory board members	11.4	11.4	5.6
Executive board members	15.1	18.2	17.3
Other managers	12.1	10.7	9.0
Rank-and-file employees	47.4	37.5	24.9

Source: Gardawski, J. "Emergence of ownership structure" in Jarosz, Maria, ed. 2000. *Dziesięć Lat Prywatyzacji Bezpośredniej* (Ten Years of Direct Privatization) Warsaw: ISP-PAN, p. 156.

**Table 2.** Number of companies listed on the Warsaw Stock Exchange and market value, 1995-2004 (year-end)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Number of listed companies	65	83	143	198	221	225	230	216	203	230
Capitalization (mill PLN)	PLN 11,3	PLN 24,000	PLN 43,800	PLN 72,400	PLN 123,000	PLN 130,000	PLN 103,000	PLN 111,000	PLN 168,000	PLN 292,000

Source: *Warsaw Stock Exchange* (www.wse.com.pl)

In 2004, the equity market in Poland consisted of 35% of trading carried out by individual investors, 33% by foreign investors and 32% by domestic institutional investors. Although institutional investors account for the smallest share of the equity market, their participation has increased steadily from 24% in

1997. In contrast the share of individual and foreign investors decreased from 38% in 1997. According to Table 3, the equity market in 2004 was based on 32% institutional domestic investors, 35% individual domestic investors and 33% foreign investors.

**Table 3.** Warsaw Stock Exchange trading by investor type (%)

Investors	1997	1998	1999	2000	2001	2002	2003	2004
Foreign	38%	39%	34%	28%	34%	35%	32%	33%
Individual domestic	38	39	44	50	37	29	29	35
Institutional domestic	24	22	22	22	29	36	39	32
TOTAL	100	100	100	100	100	100	100	100

Source: *Warsaw Stock Exchange*, 18 July 2005. Data based on the survey conducted among WSE members

Recent data for Poland suggests a trend toward further concentration, with the median value of the controlling shareholders voting block over 50%.<sup>36</sup> This value appears slightly higher, but within the general patterns occurring in Western Europe. It is, however, substantially higher than the median value of biggest block of shares observed in the United States and Great Britain. However, it should be noted that ownership in Polish firms is less concentrated than in other Central Eastern European countries – only about 35% of the firms have the largest owner holding more than 50% of votes vs. Czech Republic, Latvia and Romania where 49-70 percent of largest owners hold more than 50%.<sup>37</sup> While ownership and control of

Polish public companies is mainly in the hands of individuals and other companies (in terms of size of voting block), foreign investors provide the biggest share of capital, followed by the State Treasury and individual investors.<sup>38</sup>

Notwithstanding the above-mentioned advances in the system of corporate governance, empirical evidence suggests that numerous abuses of corporate control do take place. Such abuses include the stripping out of assets by government-inspired national investment funds or strategic investors paying premium for a controlling stake in a company without making a general offer to shareholders. For example, a German bank, which paid more than twice as much per share for the Polish Bank Przemyslowo-Handlowy (BPG) that it paid minority shareholders. In another case, Michelin was accused of unfairly transferring profits from its listed Polish subsidiary, Stomil

<sup>36</sup> Quoted in Tamowicz, P., and T. Dzierzanowski. 2002. "The White Paper on Corporate Governance." Gdansk: The Gdansk Institute For Market Economics, p. 22.

<sup>37</sup> Berglof, E., and A. Pajuste. 2003. "Emerging Owners. Eclipsing Markets. Corporate Governance in Central and Eastern Europe." Working paper version of the chapter that appeared in P.K. Cornelius, and B.Kogut, eds. *Corporate Governance and Capital Flows in a Global Economy*, 2003, Oxford University Press. p. 12.

<sup>38</sup> Tamowicz, P., and T. Dzierzanowski. 2002. "The White Paper on Corporate Governance." Gdansk: The Gdansk Institute For Market Economics, p. 24.

Olsztyn.<sup>39</sup> Thus, it appears that the problem of agency – effective monitoring of managers – is a significant problem in transitioning economies.<sup>40</sup>

Two major factors are mitigating the social, political and historical traditions that have shaped the system of corporate governance emerging in post-socialist Poland. First, Poland's membership in the EU means that as with Western European countries, new EU members have to comply with EU directives. This view is confirmed by remarks made by the president of the Polish Securities Commission, Jaroslaw Kozlowski:

“The presence of foreign entities on the Polish market requires closer co-operation with regulators from other countries which is provided by agreements on co-operation and exchange of information... Furthermore, Poland's joining the EU considerably influenced the legislative process concerning the capital market – regulatory tasks of the Office of the Commission focus more and more on the participation in the legislative process at the EU level.”<sup>41</sup>

Second, integration with the European currency system and Poland's dependence on foreign investment means domestic reforms and policies are strongly more dependent on the influence and interests of foreign capitalists. The formidable domestic presence of foreign multi-national corporations means that their interests dominate the domestic economic agenda to the detriment of domestic interests. Although the need for government intervention is generally accepted, the goal of creating long-term capital growth is severely constrained by the external economic interests.

## Conclusion

Notwithstanding certain pressures at convergence, being a shareholder in a country like Poland is different than being a shareholder elsewhere. These differences depend on the formal legal rules and norms that govern shareholder status. These rules in turn determine the willingness of individuals and other entities to invest. Following Shleifer and Vishny (1997), different legal rules and different levels of enforcement determine different systems of corporate

governance. The empirical question then becomes, what are the characteristics of a particular system and does it resemble any other existing models? In the contemporary global economy, any national system of corporate governance is likely to be increasingly affected by changes occurring at the global level, such as changing regulations and standards of firm conduct, and increasing penetration of foreign capital. These factors create a need to synchronize regulations so as to allow firms to compete effectively on the global market. However, as I have argued in this paper, this process of convergence is limited by the internal dynamics of the country. In this paper I analyzed the development of corporate governance in post-socialist Poland. I paid special attention to the legal environment and the developing financial sector. As I described above, in the case of Poland, one factor has been particularly significant. The evolution of corporate governance is occurring in an institutional context of strong employee participation at the firm-level. The strong presence of “insiders” in the ownership of Polish enterprises means that the owner is likely to be a manager. The problem of corporate governance then becomes in setting up the proper mechanisms for protecting minority shareholders. As ownership becomes diffused, the separation of owners and managers creates problems of agency and the need for institutions that attempt to synchronize the needs of managers and investors.

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## CORPORATE GOVERNANCE CYCLES DURING TRANSITION: A COMPARISON OF RUSSIA AND SLOVENIA+

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### Abstract

The governance cycle – here defined as the changes in the identity of the dominant owner and ownership concentration - is marked by the key phases of firm life-cycle, including start-up, growth, an eventual restructuring or exit stage. Privatized firms in transition countries, however, experience somehow specific cycles, which reflect the characteristics of the economic and institutional environment in transition: i) the type of privatization that initially often introduced a high proportion of employee ownership (like in Russia and Slovenia); ii) strong pressures for restructuring and ownership changes; iii) limited possibility for external finance due to the embryonic development of the financial system. The hypotheses on the development of the governance cycles in transition are tested upon a sample of Russian enterprise data for 1995-2003 and Slovenian data covering 1998-2003. In spite of the differences in institutional development concerning privatization and development of corporate governance institutions, we find that governance cycles are broadly similar in the two countries. Employee ownership is rapidly fading in both countries. While change to manager and non-financial domestic outsider ownership is typical for Russia, this is not the case in Slovenia. Instead, change to financial outsiders in the form of Privatization Investment Funds is more frequent. Foreign ownership, which is especially rare in Russia, is quite stable. The ownership diversification to employees and diversified external owners during privatization did not fit well to the low development of institutions. As expected, we observe a subsequent concentration of ownership on managers, external domestic and foreign owners in both countries.

**Keywords:** corporate governance, privatization, ownership, transition economies, Russia and Slovenia

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### Introduction

To the extent that there is a possibility for the ownership structure to adjust, any changes in enterprise characteristics over its life-cycle and in the surrounding environment lead to changes in the firm's ownership structure (Jones and Mygind, 2004). The classic entrepreneurial company starts up as a small entity with relatively low capital inputs; the information asymmetry makes the transaction costs of writing and controlling the contracts high. Most of the capital is thus provided by the entrepreneur and by debt based on personal loans e.g. with collateral in the family-house. While firm grows (initial growth stage), the owner needs more external financing; at the same she starts building reputation and her access to outside financing improves. The owner-entrepreneur may get new capital by issuing extra shares to new owners, normally from a rather closed circle of stakeholders (e.g. firm's top-employees, local investors, close

business partners). At a more mature growth stage, when the firm has developed its potential, it may attract a strategic investor or decide to go public. Going public is often related to the process of ownership diversification. Hence, firm growth often leads to a lower degree of ownership concentration. Sooner or later many companies run into a stage of crisis. Diverse internal and external factors, including changes in technology and/or markets or the institutional setting, force the company to adjust to the new conditions and undertake restructuring. New external capital and expertise are needed and banks, venture capital and strategic investors may play an important role. As an alternative to firm closure, insiders may make a defensive takeover to protect their jobs and their specific human capital. The crisis may also result in an exit of the company and liquidation of the assets, which is then taken over by new investors for other activities.

The second set of elements determining the ownership dynamics lie in countries' economic and cultural environments. For example, MBOs are more frequent in business cycle troughs because of low pricing of assets during dips (Wright et al., 2001), while boom periods on the stock market create incentives for IPOs (going public). Defensive employee takeovers should be more frequent in recessions because of higher threats of closure and lower alternative employment possibilities (Ben-Ner 1988). The degree of legal protection of minority owners, the liquidity and development of the stock markets also have strong impact on the diversification of ownership (La Porta et al. 1999, Becht et al. 2002). On the other hand, proper bankruptcy legislation enhances the possibility of financing growth through bank-loans. Historical traditions, cultural values, norms and preferences of the stakeholders, can also explain important differences in the governance structure between countries. Given the specifics of the economical and institutional development in transition countries, we expect the firm governance cycle in transition to be different than the governance cycle in market economics. The enterprises experience a transition in ownership structure, a transition in relation to the changing institutions in the environment, and a transition of the market in relation to prices, costs, and competitiveness. All these somehow shape a special governance cycle and determine a specific evolution of ownership and control in the post-privatization period. In this regard, our paper provides important evidence on the applicability of the governance cycle theory in transition. We observe that a switch away from the dominance by employee owners characterizes both countries, namely Russia and Slovenia. Notwithstanding the similarities in the initial ownership allocation and decreases in the employee ownership, the differences in the post-privatization ownership adjustments in Russia and Slovenia can be explained by the differences in their macroeconomic, institutional and cultural environments.

The paper is structured as follows. The specifics of transition and the predictions on the evolution of the governance cycle in transition countries are outlined in Section 2. Section 3 draws the differences in the privatization and institutional development in Russia and Slovenia. The data, models and the results of the empirical analysis of the ownership changes and their determinants are presented in Section 4.

## **2. Predictions on the evolution of the governance cycle in transition countries**

The final section concludes. There are special conditions that need to be taken into account when explaining the governance cycle in transition. The privatization process itself initially created specific conditions for the development of private ownership. Different methods favoured different types of owners (employees, managers, domestic or foreign outside

owners) and created specific ownership structures that would not have developed otherwise. The path-dependency may create a learning process and institutional development, which may lead to specific paths for subsequent developments in the governance structure (Roe, 1990). It is, however, expected that post-privatization adjustments will tend to bring the ownership structure back to a "normal" equilibrium. Moreover, nearly all state owned enterprises were initially confronted with a strong pressure for restructuring of production methods, organizational structure and markets and required new capital, skills and networks. In the developed market economies all these often leads to a change in ownership bringing new investors with the necessary resources for restructuring. In transition, privatization itself might deliver the best-fit investor for restructuring at the very beginning. Alternatively, the 'right' owners might enter later on through takeovers or block trades. Last but not least, the lack of a proper institutional environment in transition delays the ownership adjustments and, in the early transition, favours special types of owners. For example, given the lack of outside investor protection (credible auditing procedures, transparent stock markets) insiders have an advantage in relation to outside owners (Mygind, 2001). In many countries (including Slovenia and Russia), privatization introduced a high degree of employee ownership. However, the lack of governance skills, lack of capital and excessive risk-concentration may lead to a rapid sale to other investors; this tendency is particularly strong in the firms with high number of employees, high capital intensity, and low wages. On the other hand, the employee desire to preserve employment (Blanchard and Aghion, 1996), a satisfactory level of employee governance skills acquired prior to transition or a high degree of specific human capital might delay this change. With underdeveloped institutions, low degree of outside investor protection, high asymmetry of company information and lack of markets for company shares, managers as acquirers of employee shares have a strong advantage compared to outside investors (Kalmi, 2002). We therefore expect that most of the employee shares end up in the hands of managers, at least in the early stages of transition.

Voucher-privatization on the other hand provides for a high degree diversified external ownership at the initial stage of transition. Most of these initial small external shareholders are under strong wealth constraints and, due to underdeveloped institutional environment, enjoy no legal protection. Therefore, we initially expect to observe a concentration of ownership in the hands of managers and small groups of external investors, who have accumulated wealth in the early transition. Upon improvements in the institutional environment and external investor protection, the managers would probably sell some of their shares to outside owners, in particular in the companies with a strong need for extra capital. Given the low size and limited liquidity of the capital

markets, the tendency probably goes towards a higher concentration of ownership in the hands of outside blockholders rather than towards a diversification of ownership among many small external investors. Foreign ownership, on the other hand, results both from new green-field entities or the takeovers in the privatization or during the post-privatization adjustment process. It is probably rather stable since these enterprises have reached their final stage of development in the ownership cycle at least within the relatively short time-horizon of our analysis (Jones and Mygind, 2004).<sup>1</sup>Cross national differences, institutional differences related to the speed and form of transition make both the starting point and the speed of change different across the transitional countries; all these makes the tendencies ambiguous and requires further empirical investigation. For example, the dominant form of privatization determines the size of the employee, managerial or other types of ownership at the beginning of transition (Mygind, 2001). Specific privatization rules and other restrictions (e.g. restrictions on share transfers) may reduce the flexibility of ownership structure after privatization. In addition to privatization, general economic and institutional environment and political stability determine the level of foreign investments (Bevan et al., 2004). The speed of ownership change also depends on the transition of institutions, in particular the development of the banking sector (debt financing), the development of capital markets and shareholder protection. The governance cycle can be further shaped by countries' economic development, the degree and duration of the initial fall in the production and possible later reversals. For example, the steep fall in population income may put a strong pressure on liquidity-strained and other low-income employees to sell their shares, leading to higher concentration. On the other hand, high risk of unemployment may increase the defensive motive of the employees to keep their shares in order to preserve their jobs and secure their specific human capital. Finally, cultural factors and historical experience of management style, employee participation in ownership and control, and the attitudes of risk-taking affect the sustainability of employee ownership and the development of a broader shareholder-culture with diversified ownership. Specific developments in the Russian and Slovenian economic and institutional environment are presented in the next section (see also Table a-3 in the Appendix).

### 3. Privatization and Governance Institutions in Russia and Slovenia

The background for Russian privatization is represented by generations of centralized planning

<sup>1</sup> It is necessary to point out that this paper analyses privatized firms in transition. A normal governance cycle is, on the other hand, expected for new start-up firms, namely either manager→outside concentrated (domestic→foreign) or foreign concentrated (stable).

with limited entrepreneurial scope. Firms were characterized by paternalistic management style and a low degree of employee participation in firm governance. Though the first wave of market-oriented reforms began under Gorbachyov's Perestrojka, privatization started only after the dissolution of the Soviet Union in 1991. Privatization of small entities was done quite fast, mostly upon auctions and tenders in 1992 and 1993. Mass privatization, directed toward medium and large enterprises, started in the fall 1992. Vouchers distributed to the whole population could be used for buying shares in the enterprises. The companies could choose between different models: 1) 25 % non-voting shares were offered to employees for free, with the option to buy a further 10 % of ordinary shares at a 30 % discount of the book value of January 1992, which was much lower than the market value by the time of privatization. Managers were offered to purchase 5 % of ordinary shares at nominal price; 2) Employees could for cash or vouchers buy 51 % of ordinary shares at 1.7 times the 1992 book value. In order to be implemented, at least 2/3 of the employee should support this model; 3) Managers could buy 30 % of voting shares, while insiders could purchase additional 20% at 30 % discount. Given the rapid inflation in Russia at that time, the prices to pay in all three options were so low that the mass privatization really was a give-away (Hare and Muravyev, 2002). The privatization was very rapid. Over 15,000 of 24,000 medium and large enterprises were privatized by the end of 1994. Over 70 % of the firms offered for privatization chose to privatize under option 2, while 21% of firms chose the first option. In combination with the paternalistic ownership style, these choices only lead to further consolidation of managers' positions (Hare and Muravyev, 2002). Foreign involvement was negligible; the role of investment funds (collecting shares from small shareholders) remained limited. Many of the large jewels of Russian industry like the metal company: Norilsk Nickel and the oil-companies: Sibneft, Sidanco and some shares in Lukoil were privatized through the "loans for shares" or "mortgage" privatization in 1995. This involved direct, non-competitive sales of blocks of shares at low prices to the leading financial-industrial groups, which at the same time administered the process (IET, 1997). In the following years case-by-case privatizations of a few large enterprises and leftover state holdings were performed with increasing speed and transparency.

Due to lack of legislation, regulation and enforcement at the beginning of the 90-ties, few managers and their allies succeeded in appropriating rights from employees and diversified external owners and to accumulate large fortunes through widespread tunneling. Despite the development of the legislation and the institutions in the mid 1990es, its enforcement remains relatively weak due to widespread corruption and lack of trained officials (Puffer and McCarthy, 2003). Russian financial sector faces several problems in regard to its functioning and 'efficiently'

channeling the capital to the enterprises. The banking sector remains underdeveloped; except from the largest state-controlled bank, most of banks are small and undercapitalized. The Russian stock market has never played an important role in providing enterprises with financial resources. The number of listed equities is about 250; few very large individual companies contribute most of the capital market capitalization and liquidity (Buck, 2003). However, large companies have been improving their corporate governance systems and introducing higher standard of disclosure, accountability, and protection of minority owners since 2001; both regulation and enforcement of governance rules have been improving ever since (Puffer and McCarthy, 2003). However, active foreign investor participation in firm governance and control is still rather rare.

Slovenia's economic development has been quite different from the situation in Russia due to relatively high level of firm productivity and competitiveness since the 1960s and USD wages that were 8-15 times higher than those of the Russian level (see Table a-2 in the Appendix). Prior to transition firms were owned by the society as a whole (social capital) and formally managed by workers (for more, Prasnikar and Svejnar, 1991). The Privatization law (1992) provided for the compulsory free transfer of shares to different State-controlled Funds (10 % to the Restitution Fund, 10 % to the Capital Fund for reserve and pension purposes) and 20 % to the Development Fund (for further sale to the Privatization Investment Funds)<sup>2</sup> and, the distribution of 20 % of the shares to insiders in exchange for their vouchers. Companies could then freely decide on the allocation of the remaining 40 %; they could either privatize internally and sell them to insiders according to a special scheme or privatize externally through public offering of shares, tenders or auctions. During the six years, more than 1,300 companies (96.2%) successfully completed the ownership transformation; more than 90% of these firms chose the internal distribution and internal buyout as the main privatization method. Internal owners ended up holding about 40 % of the social capital subject to privatization. Internal ownership prevailed as dominant mostly in smaller, labor-intensive firms (Privatization Agency report 1999).

Slovenian corporate legislation is on level with the standards in most EU-countries, and the implementation is also about to reach this level (See Table a-2). The stock exchange in Ljubljana opened already in 1990, but capitalization and trading started only with the first listings of the privatized firms in 1996. Since then market capitalization of shares grew quite fast to reach 23% of GDP in 2002, one of the highest in Eastern Europe (Caviglia et al 2002).

<sup>2</sup> For the purpose of mass privatization, 2,000,900 ownership certificates or vouchers (at a value of 49% of estimated value of social capital) were issued. Certificates were not transferable and could be used for acquiring shares in internal distribution (buy-out), public offering or for the exchange with shares of Privatization Investment Funds.

However, the trading on the Stock Exchange is thin and concentrated among few shares of the largest firms. Firms mostly rely on inside funds (retained earnings or depreciation) to finance their investments, while bank financing represents the most important outside source of financing, particularly in the last years. Commercial banks prior to transition were strongly dominated by the largest companies and provided funds to the latter regardless sound lending principles; consequently, they ended up with a large proportion of bad loans in their portfolios. The 6-year rehabilitation process of the banks started with the establishment of the bank-restructuring agency. Banks came under state governance, their portfolios were cleaned and privatization process initiated. Bad bank loans dropped from a level of 22 % in 1994 to 10 % of loans in 2002 (EBRD 2003). However, the privatization of banks was relatively slow with one of the largest banks privatized as late as 2002 to a Belgium banking group. After this, most of the banking sector was privatized and 16 % of the total assets in Slovenian banks were in banks with majority foreign ownership. The size of bank intermediations has been increasing steadily since 1993 to reach a level of 41 % of GDP in 2002. Although this is lower than the EU average, Slovenia is on a quite high level measured by East European standards (Cufer et al., 2002). How has the described cultural, economic and institutional development influenced the governance cycle in Slovenia and Russia? As observed, privatization models in both countries initially introduced a high degree of employee ownership. This raises a second question: is the next step going to be managerial ownership, as predicted in the theoretical part? Can we assume that the Slovenian institutional setting reached such a level or minority investor protection that it can open up for an increased weight on diversified share-ownership? The empirical analysis of the latter and other hypotheses on the evolution of the governance cycle in Russia and Slovenia is presented in the next section.

#### 4. Data and empirical analysis

The empirical analysis is based upon data gathered through special ownership surveys. The Russian panel has been collected by a team connected to The Russian Economic Barometer (REB), a Moscow-based independent research centre founded in 1991. They address regular business surveys to about 700 entities from different industries and regions of Russia, which are in terms of size, industries and methods of privatization representative for the population of medium- and large-size industrial enterprises. The usual response rate is close to 30 %. In Slovenia, the target group consisted of a representative sample of 623 Slovenian non-financial joint-stock companies (all companies) with shares registered in the Shareholder Register of the Central Securities Corporation. A total of 150 companies returned filled questionnaires giving a response rate of

24 %. They employed on average 500 employees and generated around 50 million Euros of yearly income. Additional data on the identity and ownership stakes of the largest shareholders were obtained from the Official Shareholders' Register.

Our empirical analysis concerns the evolution of the governance cycle in transition. Our main hypotheses are as follows. The paternalistic leadership style, strong managers' position, low experience and thought liquidity constraints for employees, low transparency and lack of proper institutions make the change from employee to manager ownership quite likely in Russia. Given the low price of shares, the underdeveloped financial system and limited access to bank loans for financing buy-outs does not represent an important barrier to these changes. The situation is somehow different in Slovenia. Despite the higher development of the financial system and access to bank loans, the value of firm shares is relatively high due to high competitiveness and performance of Slovenian firms; employees are used to participate in ownership, face lower wealth constraints, have better understanding of the value of their shares and are not easy to manipulate. All this and somehow better institutional environment make it quite difficult for managers to cover deals and appropriate employee shares at extremely low prices. Instead of buying out their firms, it is more realistic for managers to hold control by making alliances with the employees (for example, through Workers' Associations). Hence, Slovenian employee ownership might be more stable than predicted. The next step in the governance cycle towards external, although concentrated owners, requires a more sophisticated development of the governance institutions that enable owner control over management. Such development is expected to be slow in Russia. The exceptions here are the large companies, where manager need alliances with strong external groups to get dominant positions. In Slovenia, the State-controlled funds and Privatization Investment Funds provide the external owners with a quite strong position already from the time of privatization. Quicker developments of the institutional environment and more advanced financial sector are expected to encourage a relatively fast adjustment to external ownership. Finally, a fast transition process and development of the institutional system improve the business climate and attract foreign investors and therefore, facilitate a faster change in the direction of foreign ownership. We do not expect to see this development for the Russian enterprises in the observed period. Slovenia offers foreign investors better conditions, but a move to more foreign ownership may to some degree be blocked by the 'rent-seeking' behaviour of Slovenian funds (for more, see Gregoric, 2003). We moreover expect a strong tendency in the direction of ownership concentration in Russia, since the latter should provide the outside owners with a mechanism to control the managers in a relatively weak institutional environment. These tendencies may not be so strong

in Slovenia. We provide a first description of the ownership dynamics by relying on transition matrices, which classify the firms according to the dominant group owners (that is the group of owners that aggregately holds more capital than any other group), at the beginning and at the end of the period under observation. For the purpose of our empirical analysis, owners are divided in six groups: managers, employees, non-financial outsiders, financial outsiders, foreigners and the State. A closer examination of the ownership changes relies on the analysis of the determinants that influence the odds for a certain type of ownership or for a certain ownership change. In estimating these, we rely on multinomial logit models with two proxies of ownership structure. The first proxy is used to estimate the determinants of ownership at the beginning and at the end of the period under observation. This variable has three categories corresponding to managers, employees and outsiders dominant ownership (for Slovenia the firms with managers and employees dominance are combined into one category). To analyse the determinants of ownership changes, we use a six-outcome ownership variable which includes categories corresponding to continuing managers, employees and outsiders dominance and to changes in dominant shareholding from employees to managers, from employees to outsiders and from outsiders to insiders (for Russia only). When explaining the ownership, we use several explanatory variables as suggested by our theoretical predictions and data availability. For Slovenia, we measure firm size by the NUMBER OF EMPLOYEES, the labour productivity (as measure for performance) by TOTAL SALES per EMPLOYEE, while capital intensity is approximated by FIXED ASSETS per EMPLOYEE. The effect of wages is measured by AVERAGE LABOUR COSTS (cost per employees). Due to limitation of Russian data we use a specific proxies of performance for Russian firms. These include two variables: FINANCIAL OUTCOME (a binary variable equal to 1 if a firm declares profits and 0 otherwise) and ORDER BOOK LEVEL (a number of orders as a percentage of firm's normal level of orders). We measure size of a firm as a TOTAL NUMBER OF EMPLOYEES. To account for high wage inflation in 1997-2003 in Russia, we use the DEVIATION OF WAGE FROM SAMPLE YEAR'S AVERAGE as measure of wage. For both countries we use sets of time and industry dummies to control for time and industry specific effects.

The main hypotheses based on our discussions (see Section 2) are summarized in Table 1 below.

The ownership dynamics of the Russian sample in the period 1995-2003 is shown in the Tables a-3 and a-4 in the Appendix.<sup>3</sup> Table a-3 shows the dynamics for each two years period for the companies who

<sup>3</sup> A reason for the relatively low number of observations in the Russian sample is high monthly rotation among the REB respondent enterprises. As a result, only one third of usual monthly numbers (about 150 enterprises) responded in two consecutive rounds.



responded in two consecutive rounds. As shown in column Total (1995) of the transition matrix for 1995-1997, 26 out of 41 firms were employee dominated in 1995 - the group of employees had a higher stake than

the other mentioned owner-groups. Non-financial domestic outsiders dominated 7 firms, while 4 firms were in domination of financial outsiders.

**Table 1.** Hypotheses on the determinants of ownership change – firm level.

<p>From employee ownership</p> <p>+ Size High number of employees =&gt; free rider problem, high costs of decision making. Falling number of employees =&gt; some owners become outsiders, often sell off in the process.</p> <p>+ Capital intensity High capital intensity =&gt; high capital needs per employee, capital constraint, weak financial system =&gt; low employee ownership. Increasing capital intensity =&gt; need shift of owners</p> <p>- Wage Low wage =&gt; liquidity constraint for employees, more sell off Indicator of low quality, low human capital =&gt; not fit for employee ownership Falling wage, increased constraint =&gt; sell off</p> <p>? Performance: indicators: profit-margin, ROA, ROE High profitability =&gt; high incentive to sell and get capital But very low profitability, crisis, also push for new owners Falling profitability =&gt; pressure for sell out</p>	<p>To manager ownership</p> <p>Capital constraint =&gt; not too large and capital intensive. Information advantage =&gt; managers' opportunity to take over best performing firms.</p> <p>- Size - Capital intensity ? Wage + Performance</p> <p>To outsider ownership</p> <p>Capital advantages =&gt; size and capital intensity no constraint. Employee owners leaving the firm can increase the formal number of outside owners. Information disadvantage. + Size + Capital intensity ? Wage - Performance</p>
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Only 13 or 50% (see the diagonal) of the employee-dominated firms in 1995 were still dominated by employees in 1997. 2 firms have changed to manager ownership, 5 to non-financial outsiders, 3 to financial outsiders, 2 to foreign and 1 back to dominant state ownership. The table clearly shows that the outsider domination is much more stable than the insider domination; only one out of the 11 domestic outsider dominated firms has changed and, in all cases, it was to foreign dominant ownership. The changes from 1997 to 1999 are quite similar to the first matrix. Again, the tendency away from ownership dominated by employees is very strong, and the most frequent change is to non-financial outsiders. Dominant employee ownership continues to be reduced by around 50% per period also in the two latest matrices. Now the changes to management ownership are on level with the change to non-financial outsiders. The highest number behind the category non-financial outsiders covers domestic firms. Managers from the target company may dominate some of these firms; the reported numbers for management domination may thus be underestimated. The changes for companies that have been observed for at least two periods are summarized in Table a-4. More than half of all the companies are changing; employee-dominated firms change most frequently, mostly towards non-financial outsiders and managers. The change for financial outsiders is also quite high, but spread on many different directions, while less frequent is the change for managers and non-financial outsiders. The single foreign company represented is too thin evidence for any conclusion on the stability for this group, but it is a strong indication of the extremely low importance of foreign ownership in Russia.

The Table a-5 includes all the enterprises for the period 1999-2003, for which we obtained data on ownership concentration for at least two points in time. Not surprisingly, employee-dominated firms have the lowest ownership concentration, while financial outsiders, foreigners and state have the highest. The average stake of the single largest owner has increased from 31 % to 38 % over the observed period; this increase is the strongest in the enterprises taken over by managers from employees and from non-financial outsiders – these two changes are also the most frequent in this table. Some of the enterprises staying in the same category (frequencies reported on the diagonal) - management, and the two groups of domestic outsiders – also have quite steeply increasing concentration. A fall in the ownership concentration accompanies the changes from State to non-financial outsiders or from non-financial to financial outsiders.

When comparing the transition matrices in table a-4 and a-7 we observe some striking similarities between the ownership dynamics in Russia and Slovenia; employee ownership dominates in the initial period and decreases very rapidly afterwards, while there is nearly no supply of new employee-dominated firms. Foreign ownership is stable but quite rare, although rapidly increasing in Slovenia. While the employee ownership changes most frequently, the frequency of changes in firms dominated by non-financial outsiders is the lowest in both countries. However, there are also important differences between the two countries. With only 2 cases in the start and 4 in the end, management dominant ownership is surprisingly rare in Slovenian medium and large enterprises. This level might be slightly underestimated since, similarly to Russia, some of the domestic companies may be actually owned by managers. Moreover, the strong bargaining position of

Slovenian employees and their 'hidden' support to managers makes the alliance between managers and employees (against outside raiders) more likely and hence, decreases the need for managers' acquisition of employee shares. At any rate, employee domination rarely shifts to dominant manager ownership, but rather directly to financial or non-financial outsiders. Financial outsider ownership (in case of Privatization Investment Funds in particular) is much more stable than in Russia.

Table a-8 covers both the owner identity and the concentration on ownership of the first largest single owner over the period 1998-2001. The average size of the single largest owner has increased from 32% to 39% and is quite similar to Russia. Employee-dominated enterprises have the lowest concentration, while foreign and state owned has the highest concentration. The enterprises remaining insider owned have a stable concentration, while enterprises continuing with outsider ownership have growing concentration. The largest increases in concentration follow the changes from the employees to foreigners or/and non-financial outsiders.

The logit-analysis of the determinant of the probability for different ownership types in Russia is reported in Table a-6 in the Appendix. The analysis is done both for the initial and last year of observation as well as for the determinants of ownership changes over the period. In the static analysis on top of table a-6, bad financial outcome leads to higher probability for outsider versus employee ownership both at the start and end year (although with weakening significance). However, higher order book level decreases the probability for employee ownership at least in the start year. Wage level and number of employees have only a quite weak influence. The number of employees comes out quite strongly in the dynamic analysis in the bottom part of table a-6. The results are quite robust to whether the level and change variables are separated or combined and to the inclusion of control variables. The probability for a change from employees to outsiders compared to continuing employee ownership increases with higher number of employees. This is consistent with our predictions that higher size makes employee ownership less sustainable. Likewise in line with our predictions is the result that higher wage and wage growth result in lower odds for the change from employee to outsiders compared to continuing employee ownership. However, for shifts from employee to manager we do not find such significant results although the signs point in the same direction.

Table a-9 shows the results of the logit-analysis on the determinants of ownership structure for Slovenia. Here we only distinguish between the two large groups of employees and outsiders. The very few manager and state dominated firms are excluded from the analysis. The analysis for the start year 1998 show no significant results while the end year 2002 analysis confirms the theoretical prediction that a high number of employees has a negative effect on the odds for

employee in relation to outsider dominated ownership. This is also confirmed by the dynamic analysis in table a-9 (at the bottom) showing that higher number of employees increases the probability for a change from employees to outsiders compared to continuing employee ownership. The positive relation between high labour costs and odds for employee ownership for the 2002 analysis is also in line with our predictions. However, this result is weakened by the positive relation between wage level and the odds for change away from employees in the dynamic analysis in the bottom part of table a-9. It should be noted that this results is at the 10 % level and not robust for other specifications of the model.

The results on high capital-intensity increasing the probability of employee ownership is quite surprising. It is only significant on the 10 % level in the static analysis, but in the dynamic analysis it is strongly significant on the 1 % level both in the first and the third column of the bottom part of table a-9 and quite robust for variations in the specifications. The observed results could be due to a selection bias so that employees have been able to choose the most valuable companies. On the other hand, high capital intensity might proxy the assets specificity, which implies that idiosyncratic investments are conducive for conservation of employee dominance. A high level of labour productivity, measured as sales per employee, decreases the probability of employee ownership. Again this is quite surprising, especially, seen in relation to the high capital-intensity, which should support higher labour productivity. These results certainly require some further research.

## 5. Discussion and conclusions

Our study provides a clear confirmation about the applicability of the concept of firm governance cycle to economies in transition. The model can be efficiently used to conceptualize many peculiar features of post-privatization evolution of ownership structures and patterns of control in transition countries. These economies are undergoing fundamental changes in institutions with emerging and changing markets creating specific conditions for enterprises and their life-cycles. Privatization, pressures for restructuring and weak, but developing institutions define the conditions for the evolution of ownership structures and shape somehow peculiar governance cycles.

Notwithstanding the striking differences in macroeconomic environment, institutional setting and cultural traditions Russia and Slovenia exhibit very similar general trends in post-privatization adjustments of their ownership structures, namely the decrease of employee shareholdings and the concentration of ownership by dominant blockholders. Thus, the instability and fragility of employee ownership might be interpreted as a universal phenomenon – at least for economies in transition. Employees have been losing dominance despite

visible differences in bargaining power enjoyed by workers – extremely weak in Russia and extremely strong in Slovenia. It seems that the concentration of the bulk of shares in the hands of workers at the start of transition, which characterized both countries, created somehow unbalanced ownership structures, which were very far from a perceived equilibrium and made a path to it prolonged and costly.

The post-privatization adjustment in the two countries differs mostly due to the differences in their macroeconomic, institutional and economic environment. The Russian results supports to a high degree the proposed transition governance cycle of employee → manager → outsider ownership. Russia is still in a stage of weak governance institutions that give the managers some advantages in relation to employees and potential external owners. Most of the employee owned enterprises have changed to either manager ownership or to the next step in the governance cycle, outside domestic ownership. Change from managers to outsiders is rarer.

Although substantial changes from employee-domination are observed in Slovenia too, managers have taken over the dominant ownership position in quite few cases in the sample. The Slovenian cycle has to a high degree skipped this stage; the typical development is from employee → outsider ownership. Several explanations apply. First, the institutional development in Slovenia is so advanced that outsiders are in a stronger position and more motivated to acquire firm shares than in other transition countries. However, it is surprising to find a relatively high number of employee dominated firms. The explanation can be found in the cultural/historical heritage, the relatively high Slovenian income level, and specific institutional settings like the format of special employee shareholder associations that provide strong employee support to managers and reduce the incentives of the latter to gather the employee shares. An indication that Slovenian governance is yet not at the highest level is the increasing concentration of firm ownership; minority investor protection is apparently not strong enough for the development of more diversified shareholder ownership.

In both countries, the higher number of employees reduces the odds for employee ownership, while higher wages result in a lower probability for a change away from employee ownership. High capital intensity increased the odds for employee ownership in Slovenia (In Russia data for capital was not collected due to the lack of reliability for this type of data). If capital intensity can be interpreted as proxy for asset specificity this implies that idiosyncratic investments are conducive for conservation of employee dominance. Finally, on the contrary to Slovenia, good firm performance decreases the odds for ownership change in Russia.

The concept of governance cycle and the application to specific transitional conditions contribute to explain the ownership dynamics both in relation to the enterprise life-cycle and in an

institutional perspective. However, the importance of different drivers behind the specific changes over the governance cycle opens up for further research both in the form of quantitative analyses and in the form of case studies to reveal detailed stories about the background and actual implementation of the changes at the firm level. Another interesting question is whether other transition countries, where alternative privatization schemes without employee dominance were implemented, pass through the “classical” or some specific governance cycles. These under-explored problems are certainly interesting issues for further research.

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## Appendix

**Table a-1.** Some economic indicators for the transition process in Russia and Slovenia

	production 1989=100			unemployment			av. wage/month USD			FDI/capita
	1995	1999	2002	1995	1999	2002	1995	1999	2002	1989-2002
Russia	62	61	74	9.2%	12.6%	8.6%	117	64	123	48 USD
Slovenia	93	110	122	7.4%	7.4%	5.9%	945	953	911	1702 USD

based on EBRD 2003

**Table a-2.** The development of governance institution in Russia and Slovenia

	Russia			Slovenia		
Bankruptcy legislation	Strict law 1998 adjusted 2002, enforced?			first law 1994 stronger enforcement 2000-		
Governance enterprise competition corporate governance developments	1995 2 2 1990es much tunneling + abuses of minority investor rights, 1994 MMM pyramid investment fund scandal 1996 JSC law, securities law, but still weak implementation 2002 Code of Conduct	2002 2+ 2+ 3-	2003 2+ 2+ 3-	1995 3- 2 Companies Act 1993, quite secure shareholders' rights, Takeover act 1997, problems Worker codetermination 1993 Investment Fund law 1994 revised 2003, PIF problems	2002 3 3-	2003 3 3-
<u>Bank market</u> total number (foreign) state owned banks % assets private loans as % GDP bad loans as % of total loans regulation EBRD score	1995 2297 (21) 37 (1997) 8.7 12.3 Quite loose 2	2002 1329 (37) 17.3 11.4 2	2003 2 2	1995 39 (6) 41.7 27.3 9.3 3	2002 22 (6) 48.6 41.0 10.0 (2001) 3+	2003 priv 23 23 3+
Stock market start	1991 Moscow	2002	2003	1990 Ljubljana	2002	2003
listed firms	1995	247		1995	154	136
share capitalization % GDP	4.8	36.5		2	23	23
turnover/capitalization %		5		21	23	23
EBRD score	2	2+	3-	3-	3-	3-

based on EBRD 2003, Gregoric 2003, ECB 2002, RTS ([www.rts.ru](http://www.rts.ru)), Ljubljana Stock Exchange ([www.ljse.si](http://www.ljse.si)),

**Table a-3.** Ownership transition matrices for Russia 1995-2003

1995 \ 1997	Dominant Shareholders 1997						Total 1995
Dominant Shareholders 1995	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State	
Managers	1	0	1 <sup>*)</sup>	0	0	0	2
Employees	2	13	5	3	2	1	26
Non-fin. outsiders	0	0	6	1	0	0	7
Financial outsiders	0	0	2	1	1	0	4
Foreign	0	0	0	0	0	0	0
State	0	0	1	0	0	1	2
Total 1997	3	13	15	5	3	2	41

<sup>\*)</sup> for this firm share of managers and workers were equal in 1995

1997 \ 1999	Dominant Shareholders 1999						Total 1997
Dominant Shareholders 1997	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State	
Managers	5 <sup>*)</sup>	2	0	0	0	0	7
Employees	1	13	8	0	0	0	22
Non-fin. outsiders	1 <sup>**)</sup>	3	4	0	0	0	8
Financial outsiders	0	2	0	2	0	0	4
Foreign	0	0	0	0	1	0	1
State	0	0	1	0	0	4	5
Total 1999	7	20	13	2	1	4	47

<sup>\*)</sup> for 2 firms share of managers and workers were equal in 1997

<sup>\*\*)</sup> for this firm share of non-financial outsiders and workers were equal in 1997

1999 \ 2001	Dominant Shareholders 2001						Total 1999
Dominant Shareholders 1999	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State	
Managers	9	0	1	0	0	0	10
Employees	9	9	7 <sup>*)</sup>	1	0	0	26
Non-fin. outsiders	2	4	21	3	0	0	30
Financial outsiders	1	0	0	4	0	1	6
Foreign	0	0	0	0	0	0	0
State	0	0	2	0	0	4	6
Total 2001	21	13	31	8	0	5	78

<sup>\*)</sup> for 1 firm share of non-financial outsiders and workers were equal in 1999

2001 \ 2003	Dominant Shareholders 2003						Total 2001
Dominant Shareholders 2001	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State	Total 2001
Managers	7 <sup>*)</sup>	3	2	1	0	0	13
Employees	4	9	4	0	0	0	17
Non-fin. outsiders	6	1	16	2	1	0	26
Financial outsiders	0	1	2	1	0	0	4
Foreign	0	0	0	0	0	0	0
State	0	0	1	0	0	0	1
Total 2003	17	14	25	4	1	0	61

<sup>\*)</sup> for 1 firm share of managers and workers were equal in 2001

**Table a-4.** Ownership transition matrix Russia 1995-2003 (first by last years recorded)

1995 \ 2003	Dominant Shareholders (end)						Total start	change
Dominant Shareholders (start)	Managers	Employee s	Non-fin. outsider	Finance outsider	Foreign	State	Total start	change
Managers	10 <sup>*)</sup>	2	3	0	0	0	15	33%
Employees	17	22	21	6 <sup>**)</sup>	1	1	68	68%
Non-fin. outsiders	9	4	25	5	1	1	45	44%
Financial outsiders	2	1	2	4	1	2	12	67%
Foreign	0	0	0	0	1	0	1	0%
State	0	1	5	0	0	5	11	55%
Total (end)	38	30	56	15	4	9	152	56%

<sup>\*)</sup> for 2 firms share of managers and workers were equal in the beginning

<sup>\*\*)</sup> for 1 firm share of workers, financial outsiders and state were equal at the end

**Table a-5.** Russia 1999-2003 with average concentration on first largest owner

1999 \ 2003	Dominant Shareholders (end)						Total (start)
Dominant Shareholders (start)	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State	Total (start)
Managers	10 <sup>*)</sup> (30/37)	0	2 (20/37)	0	0	0	12 (29/37)
Employees	5 (14/28)	10 (15/14)	3 (11/21)	0	0	0	18 (14/19)
Non-financial outsiders	7 (30/57)	2 (11/21)	19 (31/40)	3 (54/54)	1 (20/51)	0	32 (32/44)
Financial outsiders	0	0	2 (61/68)	3 (41/50)	0	0	5 (49/57)
Foreigner	0	0	0	0	0	0	0
State	0	0	2 (64/21)	0	0	3 (87/68)	5 (76/49)
Total (end)	22 (26/41)	12 (15/15)	28 (32/38)	6 (48/52)	1 (20/51)	3 (87/68)	72 (31/38)

Average size (%) of the first largest block (beginning /end ) in parenthesis.

<sup>\*)</sup> for 1 firm share of managers and workers were equal in the beginning

**Table a-6.** Determinants of ownership, 1997-2003, Russia (Multinomial logit)

	Managers versus Employees <sup>a)</sup>		Outsiders versus Employees <sup>b)</sup>		Managers versus Outsiders <sup>b)</sup>	
	Start	End	Start	End	Start	End
(123 observations)						
financial outcome: profit, t-1	-1.48 <sup>*</sup> (0.76)	0.12 (0.63)	-1.83 <sup>***</sup> (0.31)	-0.82 <sup>**</sup> (0.40)	0.10 (0.72)	0.93 <sup>*</sup> (0.50)
Order book level, t-1	2.92 <sup>**</sup> (1.09)	1.13 (0.95)	1.29 <sup>**</sup> (0.61)	0.11 (0.83)	1.72 <sup>*</sup> (.99)	1.02 (0.76)
Ln no. of employees t-1	-0.69 <sup>*</sup> (0.41)	-0.33 (0.29)	-0.11 (0.22)	0.13 (0.26)	-0.59 (0.39)	-0.46 <sup>**</sup> (0.23)
Wage (deviation from years' mean) t-1	0.89 (1.01)	-0.38 (0.67)	0.75 (0.60)	-1.16 <sup>*</sup> (0.63)	-0.14 (0.96)	0.78 (0.56)
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Region	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.17 (2.45)	2.15 (1.95)	1.66 (1.53)	1.16 (1.75)	-0.51 (2.31)	0.99 (1.57)

1997-2003 combined year to year changes, 165 observations	Change from employee to managers vs continuing employee <sup>a)</sup>	Change from employee to outsiders vs continuing employee <sup>b)</sup>	Continuing managers vs continuing employee ownership <sup>c)</sup>	Continuing outsiders vs continuing employee ownership <sup>c)</sup>	Change from outsiders to insiders vs continuing outsider <sup>d)</sup>
financial outcome, t-1	-1.99* (1.04)	-0.30 (0.56)	0.24 (0.63)	-2.11*** (0.66)	-0.56 (0.63)
financial outcome change: loss to profit	-0.68 (1.23)	1.03 (1.18)	1.38 (1.50)	-0.92 (0.97)	-0.16 (1.07)
financial outcome change: profit to loss	0.92 (1.35)	-0.36 (1.12)	-1.30 (1.18)	1.41* (0.80)	-0.94 (0.86)
Order book level, t-1	0.06 (1.77)	-0.62 (1.21)	2.31* (1.17)	-0.41 (0.99)	2.03* (1.15)
Order book level, changes	-1.31 (1.82)	-1.92 (1.67)	0.82 (2.07)	-0.13 (1.27)	-0.53 (1.19)
Ln number of employees, t-1	0.06 (0.30)	0.92*** (0.37)	-0.07 (0.35)	0.50* (0.26)	-0.19 (0.29)
Number of employees, index	3.64 (2.59)	1.98 (1.71)	1.95 (1.77)	2.29 (1.58)	0.57 (0.63)
Wage, t-1 (deviation from years' mean)	-0.01 (0.95)	-4.20*** (2.01)	0.01 (0.90)	-0.83 (0.68)	0.21 (0.70)
Wage, index	-0.65 (0.50)	-1.09*** (0.50)	-1.04** (0.44)	-0.33 (0.36)	0.24 (0.31)
Industry (dummy)	Yes	Yes	Yes	Yes	Yes
Regions (dummy)	Yes	Yes	Yes	Yes	Yes
Years (dummy)	Yes	Yes	Yes	Yes	Yes
Constant	4.00 (2.76)	-3.46 (2.95)	-0.20 (3.06)	1.99 (2.25)	-0.14 (2.03)

\*\*\* significant at 1%, \*\* at 5% and \* at 10%. Robust standard errors in parenthesis

a) employee dominated firms as base category, b) outsider dominated firms used as base category

c) continuing dominant employee as base category, d) continuing dominant outsider base category

\*\*\* significant at 1%, \*\* at 5% and \* at 10%.

**Table a-7.** Ownership transition matrix for Slovenia 1998-2003 (first/last years recorded)

1998 \ 2003	Dominant Shareholders (end)							Total start	change
Dominant Shareholders (start)	Managers	Employee s	Non-fin. outsider	Finance outsider	Foreign	State			
Managers	1	0	1	0	0	0	2	50%	
Employees	3	23	24	14	3	7	74	69%	
Non-fin. outsiders	0	0	17	0	1	1	19	11%	
Financial outsiders	0	1	5	17	0	0	23	26%	
Foreign	0	1	0	0	3	0	4	25%	
State	0	1	4	5	2	12	24	50%	
Total (end)	4	26	51	36	9	20	146	50%	

Employees include (few) former employees, Non-financial outsiders = domestic firms and individuals, Financial outsiders = Privatization Investment Funds (PIFs) + one bank, State = state funds+other (state).

**Table a-8.** Slovenia 1998-2001 with average concentration on first largest owner

1998 \ 2001	Dominant Shareholders (end)							Total (start)
Dominant Shareholders (start)	Managers	Employees	Non-fin. outsiders	Financial outsiders	Foreign	State		
Managers	2 17/17	1 12/20	0	0	0	0	3	15/18
Employees	1 12/10	25 23/22	17 27/49	15 27/38	3 23/66	8 24/36	69	25/35
Non-financial outsiders	0	0	16 40/49	0	0	1 18/20	17	39/47
Financial outsiders	1 50/40	1 12/13	3 21/38	16 34/42	0	0	21	32/40
Foreigner	0	1 28/21	0	0	3 52/67	0	4	46/55
State	0	1 74/19	5 38/47	2 22/40	2 37/31	12 60/51	22	50/46
Total (end)	4 24/21	29 24/22	41 33/48	33 30/40	8 37/58	21 45/44	136	32/39

**Table a-9.** Determinants of Ownership Structure, Slovenia (Binary Logits)

	1998	2002
	Employee vs. Outsider	Employee vs. Outsider
LnK/L <sub>t-1</sub>	-0.26	0.49*
Fixed capital per labor	(0.35)	(0.27)
LnEmployees <sub>t-1</sub>	-0.48	-0.53**
number of employees	(0.36)	(0.26)
Average Labor Costs	0.49	1.31**
	(0.80)	(0.60)
LnLaborProd <sub>t-1</sub>	-0.34	-0.24
Laborproductivity (sales per labor)	(0.28)	(0.20)
Constant	6.0	-12.5**
	(8.06)	(5.8)
Industry	yes	yes
Number of observations	86	119

1998-2002	Change from Employees to Outsider vs Continuing Employee Ownership	Change from Employees to Outsider vs Continuing Outsider Ownership	Continuing Employee vs. Continuing Outsider
LnK/L <sub>t-1</sub>	-14.7***	-0.16	0.70***
Fixed capital per labour	(0.41)	(0.26)	(0.26)
LnEmployees <sub>t-1</sub>	0.51**	-0.12	-0.34
number of employees	(0.23)	(0.27)	(0.25)
Average Labour Costs	1.39*	-0.0013	0.27
	(0.74)	(0.65)	(0.68)
LnLaborProd <sub>t-1</sub>	0.44**	-0.32	-0.48**
Sales per labor	(0.2)	(0.25)	(0.20)
Growth in	-3.95	-1.21	0.59
Fixed capital per labor	(2.75)	(1.14)	(0.78)
Growth Employment	-5.87*	-2.20	-0.59
	(3.24)	(1.45)	(1.16)
Growth in Average Labour Cost	2.6	1.15	0.43
	(1.99)	(0.94)	(0.67)
Growth Labour Productivity	-2.23	-1.19	-0.98**
	(1.43)	(0.79)	(0.42)
Constant	-4.41	2.43	-3.32
	(5.06)	(6.8)	(6.28)
Industry	Yes	Yes	Yes
Time Dummy	yes	Yes	Yes
Number of observations	154	243	331

\*\*\* significant at 1%, \*\* at 5% and \* at 10%. Robust standard errors in parenthesis



# THE ASSOCIATION BETWEEN CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT: THE ROLE OF INDEPENDENT DIRECTORS

*Mark Benkel, Paul Mather and Alan Ramsay\**

## Abstract

The agency perspective of corporate governance emphasises the monitoring role of the board of directors. This study is concerned with analysing whether independent directors on the board and audit committee (recommendations of the ASX Corporate Governance Council, 2003) are associated with reduced levels of earnings management. The results support the hypotheses that a higher proportion of independent directors on the board and on the audit committee are associated with reduced levels of earnings management. The results are robust to alternative specifications of the model. This study adds to the very limited research into the relationship between corporate governance and earnings management in Australia. It also provides empirical evidence on the effectiveness of some of the regulators' recommendations, which may be of value to regulators in preparing and amending corporate governance codes.

**Keywords:** Corporate governance; Independent directors; Earnings management.

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## 1 Introduction

Corporate governance is concerned with establishing mechanisms that ensure that firms' resources are optimally employed for the benefits of shareholders (Dechow et al, 1996). Financial accounting-related corporate governance research has regularly adopted an agency perspective of corporate governance, which characterises the separation of ownership and control that is indicative of many large corporations. Under an agency approach, the principal objective of corporate governance is to monitor and control management. Earnings management occurs 'when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholder about the underlying economic performance of the firm, or to influence contractual outcomes that depend on reported accounting numbers' (Healy and Wahlen, 1998). If monitoring and control of management is regarded as the primary aim of corporate governance, then governance mechanisms instituted to fulfil this purpose should have an effect on the managerial practice of earnings management. Thus, this study analyses whether having a higher proportion of independent directors on the board and audit committee is associated with reduced levels of earnings management.

The potential impact of corporate governance on earnings management has been under researched in the academic literature. A few US studies (Xie et al,

2003; Klein, 2002; Chung et al, 2002) and one UK study (Peasnell et al, 2000), have considered whether specific corporate governance mechanisms are associated with reduced earnings management.<sup>1</sup> However, the results of these studies do not necessarily apply to Australian firms, as corporate governance practices between countries may be dissimilar as a result of differences in the countries' respective institutional environments (Shleifer and Vishny, 1997). As far as we are aware, only two studies (Mather and Ramsay, 2003; Koh, 2003) have been dedicated to providing insight on the relationship between corporate governance and earnings management in an Australian context. While Koh (2003) solely analysed the effect of institutional ownership on earnings management, Mather and Ramsay (2003) investigated the impact of certain corporate governance variables on earnings management within the specific context of CEO changes. Thus, there has been little empirical evidence provided on the impact of corporate governance on earnings management using Australian data.

As a result of the recent instances of corporate failures and accounting scandals, national regulators have established corporate governance codes, such as the Sarbanes-Oxley Act (2002) in the United States and the ASX Corporate Governance Council (2003) in Australia. These regulators believe that improving

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<sup>1</sup> Refer to section 2 for a review of these studies.

corporate governance structures within firms will compel managers to act in the shareholders' best interests and will thus ensure that resources are optimally allocated. As the recommendations of the corporate governance codes may impose implementation costs on companies, firms want to ensure that such recommendations are beneficial for them. The practical contribution of this study is therefore to provide empirical evidence on the efficacy of some of the regulators' recommendations by analysing whether they are associated with reduced levels of earnings management.

We find that, in a sample of the top 300 Australian companies, boards comprising a higher proportion of independent directors are associated with reduced levels of earnings management and that audit committees comprising a higher proportion of independent directors are also associated with reduced levels of earnings management. Additional analysis indicates the larger firms in the sample are driving these results. This difference may arise due to the higher public scrutiny of large firms and the notion that independent directors have stronger incentives to be better monitors in large firms as a result of this higher scrutiny (Xie et al, 2003; Fama, 1980; Fama and Jensen, 1983). It is also consistent with the view that large firms are able to attract directors with superior expertise and experience.

## 2 Theoretical framework and literature review

The following section briefly surveys the corporate governance and earnings management literature, before reviewing prior research considering the impact of specific corporate governance mechanisms on earnings management.

### 2.1 Corporate governance

The agency perspective of corporate governance concerns the incentive problems that are created by the separation of management and ownership in corporations (Sloan, 2001). Sloan (2001) depicts this agency problem by stating that managers have incentives to take actions to increase their utility but not to maximise shareholders returns. As a result of these problems, corporate control mechanisms have evolved as the means by which managers are disciplined to act in the investors' interests (Bushman and Smith, 2001).

The board of directors is the apex of the internal governance system and assists in reducing these agency problems (Fama and Jensen, 1983; Mather and Ramsay, 2003). Boards play a critical role in corporate governance through the monitoring of top management and establishing various other mechanisms that mitigate the incentives for managers to act opportunistically (Fama and Jensen, 1983). It is expected that this monitoring role is likely to be assumed by independent directors, as inside directors

are part of the management team (Mather and Ramsay, 2003). To substantiate these claims, considerable evidence has been provided in the academic literature to illustrate that independent directors protect shareholders when there are agency problems: see Brickley and James (1987), Weisbach (1988) and Byrd and Hickman (1992).

There are many aspects of corporate governance and the academic literature has analysed a number of corporate governance mechanisms within firms. Board composition is a key factor, as directors are either inside, affiliated or outside and may have backgrounds in various areas such as in the corporate, finance and legal sectors (Xie et al, 2003). Prior research has found that boards comprised primarily of independent directors are more effective monitors (Brickley and James, 1987), while outside blockholders on the board play a significant monitoring role (Jensen, 1993). Boards are less effective monitors when the board's equity ownership is small and when the CEO doubles as the Chairman of the board. (Jensen, 1993). CEOs who are company founders have greater influence over firm operations (Jensen, 1993), while stock ownership by managers leads to a closer alignment of interests between managers and shareholders and should therefore mitigate agency problems (Peasnell et al, 2000).

A key role of boards is to establish sub-committees that deal with specific matters. One such committee is the audit committee, which is responsible for oversight of the financial reporting process. Prior research suggests that the role of the audit committee is to evaluate and broker the differing views of management and external auditors in order to produce a reliable financial report (DeFond and Subramanyam, 1998). The presence of an audit committee and its composition have been analysed in detail in corporate governance research (Dechow et al, 1996; Xie et al, 2003), where it has been found that firms with accounting errors were less likely to have an audit committee (DeFond and Jiambalvo, 1991).

### 2.2 Earnings management

The academic literature on earnings management is well established.<sup>2</sup> Prior research has focused on various contracting theories of earnings management, such as the bonus hypothesis and the debt hypothesis (Watts and Zimmerman, 1990). The mere existence of earnings-based bonus plans may present managers with incentives to either increase or decrease earnings (Healy, 1985). Similarly, closeness to debt covenant constraints may provide managers with the necessary motivation to engage in earnings management (Dechow et al, 1996). Practitioners believe that the role of accounting information in investment and lending decisions is the prime incentive for earnings management (Dechow et al, 1996).

<sup>2</sup> See Schipper (1989) and Healy and Wahlen (1998) for a review of the earnings management literature.

Other research has established that, in addition to income-increasing earnings management, managers appear to manage earnings downwards when pre-managed earnings exceed the requisite threshold by a considerable margin (DeGeorge et al, 1999). A suggested explanation for this tendency is that managers prefer to shift abnormal positive earnings to future periods in order to render future targets more attainable. Another explanation could be that managers are reluctant to report high earnings as their performance targets may be correspondingly elevated in the future (Peasnell et al, 2000).

Managers manipulate earnings through their use of accruals, changes in accounting methods and modifications to capital structure (Jones, 1991).<sup>3</sup> The academic literature has generally favoured the use of discretionary accruals as the proxy for the discretionary component of earnings, and hence the measure of earnings management: see Healy (1985), DeAngelo (1986) and Jones (1991). As nondiscretionary accruals cannot be observed separately, some mechanism must be invoked in order to obtain a proxy for discretionary accruals from total accruals (Schipper, 1989).

### 2.3 The impact of corporate governance on earnings management

Prior research has indicated that low managerial oversight is a significant catalyst for earnings management (Dechow et al, 1996). While Dechow et al (1996) considered extreme cases of earnings manipulation, recent research has assessed the relationship between more subtle accruals-based earnings management and corporate governance (Xie et al, 2003; Mather and Ramsay, 2003).

It has been established that boards with a higher proportion of independent directors assist in constraining income-increasing earnings management (Peasnell et al, 2000; Xie et al, 2003; Klein, 2002). Further, Xie et al (2003) provide evidence that independent directors with corporate experience are more likely to constrain earnings management.<sup>4</sup>

Dechow et al (1996) provide evidence that firms engaging in earnings management are less likely to have an external blockholder monitoring management and are more likely to have a CEO who is the company founder and/or the Chairman of the board. Xie et al (2003) demonstrate that reduced earnings management is associated with frequent board meetings and shorter tenures of independent directors. They also show that smaller firms tend to report

higher levels of discretionary accruals, which is consistent with the notion that smaller firms attract less scrutiny and therefore may be able to engage in a higher level of earnings management (Xie et al, 2003).

Chung et al (2002) demonstrate that institutional investors with significant shareholdings will monitor managers' accounting choices and will assist in reducing earnings management. Koh (2003), however, makes an important distinction, illustrating that short-term institutional investors create incentives for managers to engage in earnings management, whereas long-term institutional investors actively participate in their firm's corporate governance and limit managers' discretion to engage in earnings management.

While Peasnell et al (2000) do not find evidence to substantiate that audit committees directly constrain earnings management, they nevertheless determine from their finding of a significant negative co-efficient on the interaction term between outside directors and the presence of an audit committee, that audit committees influence earnings management through their role of facilitating outside director monitoring. Xie et al (2003) found that the percentage of independent directors on the audit committee is unrelated to discretionary accruals. However, the existence of corporate members and/or investment bankers on the audit committee is associated with reduced levels of earnings management (Xie et al, 2003). These members therefore assist the monitoring role of the committee. In contrast to Peasnell et al (2000) and Xie et al (2003), Klein (2002) found a negative relationship between the percentage of independent directors on the audit committee and abnormal accruals. In relation to the NASDAQ and NYSE's guidelines that audit committees are only independent if they consist solely of independent directors, Klein (2002) did not find evidence of an association between an all-independent audit committee and abnormal accruals.

### 3 Hypothesis development

From an agency perspective, the primary aim of corporate governance mechanisms is to mitigate agency problems, which result from the separation of ownership and control. Dispersed ownership, which is manifested in large corporations, necessitates the delegation of decision-making authority to management and as a result managers may have incentives to behave opportunistically in preference to acting in the best interests of shareholders. This may lead to direct wealth transfers from shareholders to management, sub-optimal allocation of capital and managerial perquisite consumption (Sloan, 2001). Thus, agency problems may cause costs to be imposed on shareholders. This displays the need for corporate governance mechanisms and, in particular, a board of directors. Boards play a critical role in corporate governance through the monitoring of top management and establishing various other

<sup>3</sup> Earnings management exists because the costs to produce contracts with full information may outweigh the benefits of eliminating it (Schipper, 1989). In many cases, the potential benefit to each member of a particular group is too small and collectively their interests are too diverse to make opposition to earnings management cost effective (Jones, 1991).

<sup>4</sup> Xie et al (2003) define corporate experience as directors who are currently or were previously employed as executives in publicly held corporations.

mechanisms that mitigate the incentives for managers to act opportunistically (Fama and Jensen, 1983).

Given this approach, monitoring management is the principal role of the board hence, it is particularly relevant to determine the characteristics of the board that result in maximisation of its ability to perform its monitoring role. Discussions on board characteristics frequently refer to two aspects: board size and board composition. In this paper, board composition will be analysed.<sup>5</sup>

Directors can be classified as inside, affiliated or outside. Inside directors are part of the management team and would not be expected to effectively monitor senior management, while affiliated directors are not truly independent and would also not be expected to be effective monitors. The monitoring role is therefore likely to be the province of independent directors. The ASX Corporate Governance Council (2003) recommends that a majority of the board should be independent directors so that the board can 'effectively review and challenge the performance of management and exercise independent judgment' (ASX Corporate Governance Council, 2003). Thus, as a result of the importance of the monitoring function of independent directors in the agency perspective of corporate governance, both hypotheses relate to independent directors. Fama (1980) and Fama and Jensen (1983) contend that independent directors have incentives to build reputations as expert monitors, as performing poorly in this area would diminish the value of their human capital. It is therefore expected that independent directors, in the performance of their monitoring role, would play a role in the detection and prevention of earnings management. This leads to the first hypothesis:

H1 – Firms with boards comprising a higher proportion of independent directors will be associated with reduced earnings management.

Fama (1980) and Fama and Jensen (1983) state that boards establish mechanisms to reduce the ability of managers to behave opportunistically. One such institution is the audit committee, which is responsible for monitoring the firm's financial performance and financial reporting. The audit committee acts as a link between the board and the external auditors, meeting regularly with these parties to review the firm's financial statements, audit process and internal

accounting controls (Klein, 2002). The ASX Corporate Governance Council (2003) recommends the establishment of an audit committee that is of 'sufficient size, independence and technical expertise to discharge its mandate effectively' (ASX Corporate Governance Council, 2003). In particular, they suggest that audit committees should be comprised of a majority of independent directors and an independent chairperson. Prior research is mixed on whether there is a significant association between the proportion of independent directors on the audit committee and earnings management. Nevertheless, as the audit committee deals specifically with financial reporting and independent directors have incentives to monitor management, it is expected that independent directors on the audit committee play a role in the detection and prevention of earnings management. This leads to the second hypothesis:

H2 – Firms with audit committees comprising a higher proportion of independent directors will be associated with reduced earnings management.

## 4 Research design

### 4.1 Earnings management model

A number of models have been developed to estimate discretionary accruals. Dechow et al (1995) assert that all of the models are well specified but have low power. The Jones (1991) model will not be used because it biases estimates of discretionary accruals in tests of revenue-based earnings management. It also requires a substantial amount of time-series data, which is not practical in light of the scope of this study. While the modified Jones model (Dechow et al., 1995) is the most powerful, it similarly requires data over a lengthy time series and, as such, may significantly reduce the sample size. The cross-sectional Jones model (Dechow et al., 1995) will not be employed due to potential industry matching problems and concerns over industry classifications in Australian data. This study will follow DeAngelo (1986) in estimating discretionary accruals. In this model, the total accruals from the previous year are assumed to be the non-discretionary accruals for the current year. This model has been used in prior Australian earnings management research: see Eddey and Taylor (1999) and Godfrey et al (2003). The assumptions inherent in the DeAngelo model are less restrictive and it requires less data than the other models (Godfrey et al, 2003). The accrual component of earnings, or current accruals, is defined as the difference between net operating profit after interest and tax and cash flow from operations.

$$ACC_t = NPAT_t - CFO_t$$

$ACC_t$  = Current accruals in period 't' or accrual component of earnings in period 't.'

$NPAT_t$  = Net operating profit after interest and tax in period 't.'

$CFO_t$  = Cash flow from operations in period 't.'

$NPAT_t$  and  $CFO_t$ , and hence  $ACC_t$ , are deflated by beginning-of-period total assets to allow for interfirm

<sup>5</sup> Prior academic research that has considered the relationship between board size and firm performance finds conflicting results (Yermack, 1996; Eisenberg et al, 1998; Dalton et al, 1999). However, there has been significantly less research on the association between board size and its monitoring role in relation to earnings management. Xie et al (2003) provide evidence that larger boards are associated with reduced earnings management, while Mather and Ramsay (2003) reach a similar conclusion in the context of CEO changes. Nevertheless, in analysing the effect of board size on earnings management, it must be taken into account that board size is an exceptionally noisy measure. It may indeed be that large boards only constrain earnings management as a result of having a higher number of independent directors or more directors with financial expertise. It is therefore difficult to determine whether board size on its own has any influence. Thus, no specific hypotheses concerning board size will be developed.

comparisons and to reduce heteroskedasticity (Edey and Taylor, 1999; Godfrey et al, 2003).

As accruals comprise discretionary and nondiscretionary components, the level of discretionary accruals is measured as the difference between current accruals and nondiscretionary accruals. The DeAngelo model uses current accruals from a prior period as the measure of nondiscretionary accruals for the current period. The model uses each firm as its own control and relies on the assumption that the average change in nondiscretionary accruals is zero, so that a change in accruals reflects a change in discretionary accruals.

$$DACC_t = ACC_t - ACC_{t-1}$$

$DACC_t$  = Discretionary accruals in period 't.'

$ACC_t$  = Current accruals in period 't' or accrual component of earnings in period 't.'

$ACC_{t-1}$  = Current accruals in period 't-1,' which is the proxy for nondiscretionary accruals in period 't.'

The DeAngelo model has its limitations. Firstly, if nondiscretionary accruals vary across periods, the model will measure discretionary accruals with error. Secondly, the model does not take account of the impact of changes in economic circumstances on nondiscretionary accruals (Dechow et al, 1995). Thirdly, as the power of the model is low, it may not detect all instances of earnings management (Godfrey et al, 2003).

## 4.2 Corporate governance variables

The following corporate governance variables derive from the theory and hypothesis development.

*Proportion of independent directors on the board (INDDIR)*: This variable is defined as the number of independent directors based on the Investment and Financial Services Association definition divided by the total number of directors on the board.<sup>6</sup>

*Proportion of independent directors on the audit committee (INDAUD)* This variable is identified as the number of independent directors on the audit committee based on the Investment and Financial Services Association definition divided by the total number of directors on the audit committee.

## 4.3 Control variables

While there are a number of possible control variables that can be used, increasing the number of controls may have the effect of reducing the power of the model. The following controls, which are built in to the model to be used in the empirical analysis, have been frequently used in similar prior studies.<sup>7</sup>

*Board size (SIZE)* This variable is defined as the number of directors on the board and is included as a

control variable based on prior research indicates that board size may have implications for board monitoring (Jensen, 1993).

*CEO duality (CEO=CHAIR)* This is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise. Jensen (1993) argues that this arrangement reduces board monitoring effectiveness.

*Big 4 auditor (BIG4)* This is a dummy variable that is designated one if the firm has a "big 4" auditor and zero otherwise. Prior academic research suggests that firms with "big 4" auditors are less likely to report income-increasing abnormal accruals (Becker et al, 1998). Thus, this study controls for potential auditor quality effects.

*Leverage (LEV)* This variable is defined as the amount of interest-bearing debt divided by year-end total assets. An incentive for adopting income-increasing accruals may be to avoid or delay costs associated with debt covenant violations (DeFond and Jambalvo, 1994). Leverage is thus used to proxy for the likelihood of debt covenant violation. Including leverage as a control variable is consistent with prior research (Peasnell et al, 2000).

*Cash flow from operations (CFO)* This variable is included to control for the association between abnormal accruals and operating cash flow (Dechow et al, 1995) and to be consistent with prior research (Peasnell et al, 2000). CFO is scaled by beginning-of-period total assets.

*Year dummy variables (01YEAR and 02YEAR)* The 2001 (2002) year dummy variable takes the value of one if the firm-year observation is from 2001 (2002) and zero otherwise. These variables are included to control for the possibility that the results reflect only intertemporal variation in accruals (Xie et al, 2003).

## 4.4 The model

A regression model was constructed to test the hypotheses that the specific corporate governance mechanisms identified are associated with reduced earnings management. The dependent variable is discretionary accruals, which is the proxy for the extent of earnings management. The independent variables are comprised of the corporate governance variables (*INDDIR* and *INDAUD*) and the control variables (*SIZE*, *CEO=CHAIR*, *BIG4*, *LEV*, *CFO*, *01YEAR* and *02YEAR*). Thus, the overall regression model is:

$$DACC = \beta_0 + \beta_1 INDDIR + \beta_2 INDAUD + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 01YEAR + \beta_9 02YEAR + \epsilon$$

Since the discretionary accruals model is not contextual, we have no way of predicting whether any earnings management is likely to be upwards or downwards. Hence, the absolute values of discretionary accruals were used in all regressions.

<sup>6</sup> The classification was based on information supplied in the corporate governance disclosures in the company's annual report.

<sup>7</sup> Corporate governance-related controls have been built into the model. Robustness tests were performed omitting these particular controls from the analysis. Refer to the results section for the results of these tests.

## 4.5 Sample and data

The top 300 Australian companies by market capitalisation as at June 30, 2003 were initially selected and, consistent with prior literature, all banks, insurance companies and other financial institutions were excluded from the sample. This left a sample of 222 firms. The data for this study was collected over the fiscal years 2001, 2002 and 2003. Thus, the final sample included 666 firm-year observations.

The accounting data required was gathered from Aspect Financial database. The data for the independent variables and the corporate-governance related control variables was hand collected from Connect4 and hard copy annual reports. The data was analysed by running a pooled cross-sectional regression using the statistical package EViews and the White heteroskedasticity-consistent standard errors and covariance function was utilised in all of the regressions.

## 5 Results

### 5.1 Descriptive statistics

Table 1 contains descriptive statistics of the variables in the overall regression model. Discretionary accruals (which are scaled by beginning-of-period total assets) range from -119.8% to 352.7%, with a mean of 0.7%. The small mean is a function of negative and positive discretionary accruals figures in the sample that offset each other.<sup>8</sup> The average number of directors on the board of sample firms is 7.3 (with a minimum of 2 and maximum of 18), of which 57.6% on average are independent directors. In regards to the audit committee, independent directors comprise 76.3% of their composition for sample firms.

#### Table 1 about here

CEO duality is uncommon. Only 6% of firm-year observations indicate that the CEO was also the Chairperson of the board. Most of our sample companies are audited by “big 4” audit firms as evidenced by the fact that 88.9% of firm-year observations in the sample involve “big 4” auditors. The average leverage of sample firms is 24.7%, with a minimum of 0 and a maximum of 152.3%,<sup>9</sup> while the average cash flow from operations scaled by beginning-of-period total assets for sample firms is 9.1%, with a minimum of -101.3% and a maximum of 107.2%.

### 5.2 Results for the overall model

Table 2 presents the results for the pooled cross-sectional regression model comprising all the variables. The sign of the co-efficient of *INDAUD* is

<sup>8</sup> Note that the regressions employ the absolute values of discretionary accruals.

<sup>9</sup> Four firm-year observations (three firms) have leverage greater than 100%. The data was double checked to ensure there were no errors. One of these firms is now delisted, while another is trading under a different name.

negative and significant at the 5% level. This suggests that a higher proportion of independent directors on the audit committee is associated with reduced earnings management, which is consistent with H2. However, the co-efficient of *INDDIR* is insignificant and positive, which is inconsistent with the theory, and does not support a significant association between the proportion of independent directors on the board and earnings management.

#### Table 2 about here

The correlation coefficient associated with the independent variables *INDDIR* is .75 which indicates that multicollinearity is a potential problem. Kvanli et al (1986) point out that multicollinearity can be controlled through various means such as the omission of some of the collinear variables from the regression. Thus, to mitigate the multicollinearity problem, two regressions were run: one without *INDDAUD*, the proportion of independent directors on the board model (hereinafter the board model) and the other without *INDDIR*, the proportion of independent directors on the audit committee model (hereinafter known as the audit committee model).<sup>10</sup>

### 5.3 Results for the board model and audit committee model

#### 5.3.1 Board model

The results for the board model are set out in table 3. The model is significant at the 10% level (F-statistic of 1.94) and has an adjusted R<sup>2</sup> of 0.0125. None of the control variables are significant. H1 states that boards comprising a higher proportion of independent directors will be associated with reduced earnings management. The results support the hypothesis, as the co-efficient of *INDDIR* is negative and significant at the 1% level (t-statistic of -2.59).<sup>11</sup>

#### Table 3 about here

#### 5.3.2 Audit committee model

The results for the audit committee model are found in Table 4. The model is significant at the 1% level (F-statistic of 2.71) and has an adjusted R<sup>2</sup> of 0.0232. Again, none of the control variables are significant. H2 states that audit committees comprising a higher proportion of independent directors will be associated with reduced earnings management. The co-efficient

<sup>10</sup> Xie et al (2003) adopted the same approach to overcome a similar multicollinearity problem.

<sup>11</sup> In order to determine whether the corporate governance-related control variables (*SIZE*, *CEO=CHAIR* and *BIG4*) influenced the sign and magnitude of the co-efficients of *INDDIR* in the board model and *INDAUD* in the audit committee model, regressions were run omitting these variables. The results for both models were consistent with the results of the original models. Similarly, after scaling discretionary accruals by beginning-of-period total assets, there were a few instances where this ratio was greater than 1 or less than -1. These outliers were removed from the sample and the board model and audit committee model regressions were re-run to determine whether the outliers influenced the results. The results for both models were consistent with the results of the original models.

of *INDAUD* is negative and significant at the 1% level (t-statistic of  $-2.97$ ). Thus, this finding provides evidence in support of H2.

#### Table 4 about here

### 5.4 Results for large versus small firms

Xie et al (2003) provide evidence that small US firms tend to report higher levels of discretionary accruals. To analyse the effects of large and small firms, firm-year observations were split at the median total assets figure of \$550.6 million. Firm-years above this value were classified as “large” and firm-years below were categorised as “small.” Separate regressions were then run for large and small firms. Large and small firm regressions were each run twice, as a result of the multicollinearity problem mentioned previously. Thus, one regression was for the board model and the other for the audit committee model. Table 5 contains the results for the large and small firms board models. The large firms board model (panel A) is significant at the 10% level (F-statistic of 1.71) and has an adjusted  $R^2$  of 0.0182. In contrast, the small firms board model (panel B) is not significant and has an extremely low adjusted  $R^2$ . The large firms board model produced similar results to the combined firms board model. The co-efficient of *INDDIR* is negative and significant at the 5% level (t-statistic of  $-2.23$ ). This indicates that in large firms, a higher proportion of independent directors on the board is associated with reduced levels of earnings management. On the other hand, the small firms board model produced contrasting results. The co-efficient of *INDDIR* is negative but insignificant (t-statistic of  $-0.68$ ), which suggests that a higher proportion of independent directors on the board of small firms is not associated with reduced levels of earnings management.

#### Table 5 about here

The results for the large and small firms audit committee models are contained in Table 6. While the large firms audit committee model is significant at the 1% level (Panel A, F-statistic of 3.36) and has an adjusted  $R^2$  of 0.0591, the small firms audit committee model (panel B) is not significant and has an extremely low adjusted  $R^2$ . The large firms audit committee model yielded results analogous to the combined firms audit committee model. The co-efficient of *INDAUD* is negative and significant at the 1% level (t-statistic of  $-2.86$ ), which signifies that a higher proportion of independent directors on the audit committee of large firms is associated with reduced levels of earnings management. Again, the small firms model failed to produce significant results. The co-efficient of *INDAUD* in the small firms audit committee model is negative but insignificant (t-statistic of  $-1.34$ ), highlighting that, for small firms, a higher proportion of independent directors on the audit

committee is not associated with reduced levels of earnings management.

#### Table 6 about here

These findings can be used to create a link between the scrutiny explanation of Xie et al (2003) and Fama (1980) and Fama and Jensen's (1983) contention that independent directors have incentives to build reputations as expert monitors. As large firms face more intense public scrutiny than small firms, independent directors of large firms will have incentives to be even better monitors with the knowledge that poor performance will more likely be observed and scrutinised by prominent stakeholders who have an influence on the managerial labour market. The results are also consistent with the possibility that large firms are able to attract superior independent directors.

### 6 Conclusions

This study sought to examine whether independent directors, in their monitoring role, are associated with a reduction in earnings management in Australian firms. The empirical results support the hypotheses. It was found that, in a sample of the top 300 Australian companies, boards comprising a higher proportion of independent directors are associated with reduced levels of earnings management and that audit committees comprising a higher proportion of independent directors are also associated with reduced levels of earnings management. Thus, the results are consistent with prior US and UK research that has demonstrated the importance of the monitoring role of independent directors in corporate governance practices. Additional analyses were also undertaken in relation to large and small firms in order to provide further insight into the association between corporate governance and earnings management. The results indicate that a higher proportion of independent directors on the board and audit committee are associated with reduced levels of earnings management for large firms but not for small firms. This difference may arise due to the higher public scrutiny of large firms and the notion that independent directors have stronger incentives to be better monitors in large firms as a result of this higher scrutiny (Xie et al, 2003; Fama, 1980; Fama and Jensen, 1983). It may also be consistent with the view that large firms are able to attract directors with superior expertise and experience. There are some limitations inherent in the study. The DeAngelo model, which is used to estimate discretionary accruals, has certain limitations. As a result, the measure of discretionary accruals, which is the proxy for the level of earnings management, may contain error. Further, there is a limitation in relation to the regression model used in the empirical tests. While the model controls for a number of corporate-governance factors as well as leverage and cash flow from

operations, there is no control for particular events where incentives for earnings management are strong. Examples of these would be takeover targets, firms seeking to raise external capital and firms that experience CEO changes. While the corporate governance mechanisms analysed in this study should still mitigate earnings management, there nevertheless may be differences in the relation between corporate governance and earnings management in these contexts. It may be useful for further research to examine the possible relation between discretionary accruals, leverage and firm size. In addition, it may be interesting to analyse the impact of other corporate governance mechanisms on earnings management using Australian data.

This study adds to the very limited research in Australia on the association between corporate governance and earnings management and provides empirical evidence on the efficacy of a number of the recent ASX Corporate Governance Council (2003) recommendations. Thus, this study should be of interest to regulators as well as academics.

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## Appendices

Table 1. Descriptive Statistics

*DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDDIR* is the number of independent directors based on the Investment and Financial Services Association (*IFSA*) definition divided by the total number of directors on the board, *INDAUD* is the number of independent directors on the audit committee based on the *IFSA* definition divided by the total number of directors on the audit committee, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *O1YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *O2YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

	Mean	Median	Std. Dev.	Minimum	Maximum
<i>DACC</i>	0.007	0	0.219	-1.198	3.527
<i>INDDIR</i>	0.576	0.6	0.217	0	1
<i>INDAUD</i>	0.763	0.75	0.266	0	1
<i>SIZE</i>	7.253	7	2.408	2	18
<i>CEO=CHAIR</i>	0.060	0	0.238	0	1
<i>BIG4</i>	0.889	1	0.315	0	1
<i>LEV</i>	0.247	0.238	0.182	0	1.523
<i>CFO</i>	0.091	0.092	0.176	-1.013	1.072
<i>O1YEAR</i>	0.333	0	0.472	0	1
<i>O2YEAR</i>	0.333	0	0.472	0	1

Table 2. Overall Model

Presents the results of running the following equation:

$$DACC = \beta_0 + \beta_1 INDDIR + \beta_2 INDAUD + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 O1YEAR + \beta_9 O2YEAR + \varepsilon$$

Where *DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDDIR* is the number of independent directors based on the Investment and Financial Services Association (*IFSA*) definition divided by the total number of directors on the board, *INDAUD* is the number of independent directors on the audit committee based on the *IFSA* definition divided by the total number of directors on the audit committee, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *O1YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *O2YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

	$\beta_0$	$\beta_1$ <i>INDDIR</i>	$\beta_2$ <i>INDAUD</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>O1YEAR</i>	$\beta_9$ <i>O2YEAR</i>
Co-efficient	0.2067	0.0495	-0.1314	0.0009	-0.0011	-0.0525	-0.0434	0.0748	0.0204	-0.005
t-stat	(3.58)***	(0.82)	(-2.15)**	(0.32)	(-0.04)	(-0.83)	(-0.9)	(0.95)	(0.93)	(-0.34)
Adj. R <sup>2</sup>	0.0227									
F-stat	2.4841***									

\*\* Significant at 5% level

\*\*\* Significant at 1% level

**Table 3. Board Model**

Presents the results of running the following equation:

$$DACC = \beta_0 + \beta_1 INDDIR + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 01YEAR + \beta_9 02YEAR + \epsilon$$

Where *DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDDIR* is the number of independent directors based on the Investment and Financial Services Association (*IFSA*) definition divided by the total number of directors on the board, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *01YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *02YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

	$\beta_0$	$\beta_1$ <i>INDDIR</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.176	-0.073	0.000005	0.0061	-0.0482	-0.0358	0.0924	0.0203	-0.0036
t-stat	(3.83)***	(-2.59)***	(0.0019)	(0.21)	(-0.78)	(-0.77)	(1.21)	(0.93)	(-0.25)
Adj. R <sup>2</sup>	0.0125								
F-stat	1.94*								

\* Significant at 10% level

\*\*\* Significant at 1% level

**Table 4. Audit Committee Model**

Presents the results of running the following equation:

$$DACC = \beta_0 + \beta_2 INDAUD + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 01YEAR + \beta_9 02YEAR + \epsilon$$

Where *DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDAUD* is the number of independent directors on the audit committee based on the Investment and Financial Services Association definition divided by the total number of directors on the audit committee, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *01YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *02YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

	$\beta_0$	$\beta_2$ <i>INDAUD</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.209	-0.1026	0.0011	-0.0031	-0.0504	-0.0396	0.0764	0.0212	-0.0048
t-stat	(3.49)***	(-2.97)***	(0.36)	(-0.1)	(-0.82)	(-0.81)	(0.95)	(0.95)	(-0.33)
Adj. R <sup>2</sup>	0.0232								
F-stat	2.71***								

\*\*\* Significant at 1% level

**Table 5.** Large and Small Firms Board Models

$$DACC = \beta_0 + \beta_1 INDDIR + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 01YEAR + \beta_9 02YEAR + \varepsilon$$

Where *DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDDIR* is the number of independent directors based on the Investment and Financial Services Association (*IFSA*) definition divided by the total number of directors on the board, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *01YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *02YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

Panel A: Large Firms Board Model

	$\beta_0$	$\beta_1$ <i>INDDIR</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.2611	-0.1177	0.0004	0.0006	-0.1221	0.0098	0.097	-0.0164	-0.0218
t-stat	(1.35)	(-2.23)**	(0.11)	(0.02)	(-0.79)	(0.14)	(0.38)	(-0.85)	(-1.01)
Adj. R <sup>2</sup>	0.0182								
F-stat	1.71*								

\* Significant at 10% level

\*\* Significant at 5% level

Panel B: Small Firms Board Model

	$\beta_0$	$\beta_1$ <i>INDDIR</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.0741	-0.0255	0.0102	0.0134	-0.0331	-0.0261	0.0831	0.0536	0.0133
t-stat	(1.94)*	(-0.68)	(1.23)	(0.31)	(-0.47)	(-0.39)	(1.01)	(1.45)	(0.75)
Adj. R <sup>2</sup>	-0.0042								
F-stat	0.85								

\* Significant at 10% level

**Table 6.** Large and Small Firms Audit Committee Models

$$DACC = \beta_0 + \beta_2 INDAUD + \beta_3 SIZE + \beta_4 CEO=CHAIR + \beta_5 BIG4 + \beta_6 LEV + \beta_7 CFO + \beta_8 01YEAR + \beta_9 02YEAR + \varepsilon$$

Where *DACC* is the value of discretionary accruals derived using the model discussed in section 4.1 of the paper, *INDAUD* is the number of independent directors on the audit committee based on the Investment and Financial Services Association definition divided by the total number of directors on the audit committee, *SIZE* is the number of directors on the board, *CEO=CHAIR* is a dummy variable that takes the value of one if the roles of CEO and Chairperson are combined and zero otherwise, *BIG4* is a dummy variable that takes the value of one if the firm has a “big 4” auditor and zero otherwise, *LEV* is the amount of interest-bearing debt divided by year-end total assets, *CFO* is cash flow from operations scaled by beginning-of-period total assets, *01YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2001 and zero otherwise. *02YEAR* is a dummy variable that takes the value of one if the firm-year observation is from 2002 and zero otherwise.

Panel A: Large Firms Audit Committee Model

	$\beta_0$	$\beta_2$ <i>INDAUD</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.2847	-0.1564	0.0021	-0.0145	-0.1011	0.0113	0.0433	-0.0237	-0.0252
t-stat	(1.49)	(-2.86)***	(0.71)	(-0.72)	(-0.69)	(0.16)	(0.16)	(-1.19)	(-1.18)
Adj. R <sup>2</sup>	0.0591								
F-stat	3.36***								

\*\*\* Significant at 1% level

Panel B: Small Firms Audit Committee Model

	$\beta_0$	$\beta_2$ <i>INDAUD</i>	$\beta_3$ <i>SIZE</i>	$\beta_4$ <i>CEO=CHAIR</i>	$\beta_5$ <i>BIG4</i>	$\beta_6$ <i>LEV</i>	$\beta_7$ <i>CFO</i>	$\beta_8$ <i>01YEAR</i>	$\beta_9$ <i>02YEAR</i>
Co-efficient	0.1026	-0.0719	0.0119	0.0051	-0.0337	-0.02	0.0793	0.0586	0.0115
t-stat	(2.03)**	(-1.34)	(1.15)	(0.11)	(-0.47)	(-0.29)	(0.92)	(1.53)	(0.61)
Adj. R <sup>2</sup>	0.0006								
F-stat	1.02								

\*\* Significant at 5% level

# EXECUTIVE STOCK OPTIONS WITH A REBATE: VALUATION FORMULA

*P.W.A.Dayananda\**

## Abstract

We examine the valuation of executive stock option award where there is a rebate at exercise. The rebate depends on the performance of the stock of the corporation over time the period concerned; in particular we consider the situation where the executive can purchase the stock at exercise time at a discount proportional to the minimum value of the stock price over the exercise period. Valuation formulae are provided both when assessment is done in discrete time as well as in continuous time. Some numerical illustrations are also presented.

**Keywords:** executive stock option, rebate, geometric Brownian motion, Esscher transform, valuation formulae, numerical illustrations.

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## 1. Introduction

Stock options have become dominant component in executive compensation schemes in US and other industrial countries because they reward value creation better than other schemes such as bonuses tied to accounting results. Moreover they align the interest of executives with shareholders and attempt to retain talented executives who are in great demand. Generally executive stock options are pure vanilla call options with a longer term (about 5-10 years) and restrictions such as vesting. Valuation of executive stock options was not required until 2005 when FASB (Federal Accounting Standard Board) made it mandatory and provided guidelines, FASB123 (R), for expensing of executive stock options in the financial statements of corporations.

Nowadays there are many types of executive stock options such as indexed executive stock option, reload executive stock option. Some of the aspects of such executive stock options as related to corporate performance and governance can be found in Aggarwal and Samwick (1999b) and John and John (1993). As they are different from traded stock options, well known analytical formula of Black and Scholes does not provide appropriate valuation. Recent research to establish formulae to value executive stock options can be found in Hemmer et.al (1994), Kulatilaka and Marcus (1994) and Dayananda (2000). A coverage of papers related to executive compensation can be found in the text by Carpenter and Yermack (1998).

The award of executive stock options is now so widely made that even junior executives of corporations receive such offers. This paper is concerned about one form of widespread executive

awards where the executive is allowed to purchase the stock at a specified time (exercise time) with a rebate, rebate depending on the performance of the stock; specifically rebate is a percentage (denoted by  $\beta, 0 \leq \beta \leq 1$ ) and the total rebate is a product of the rebate and the lowest value of the stock during the specified period. Thus the payoff is similar to normal executive stock option. We present valuation formulae for such executive stock options with a rebate in a general framework in this paper.

## 2. Rebate assessed in continuous time

We assume that the stock price of the corporation at time  $t (\geq 0)$ ,  $S(t)$ , follows a geometric Brownian motion so that

$$S(t) = S(0) \exp\{X(t)\} \quad (2.1)$$

and that  $\{X(t)\}$  has a Brownian motion with mean and variance  $\mu$  and  $\sigma^2$  per unit time. Let the dividend rate of the stock be  $\delta$  per unit time and the risk-free rate be  $r$ .

We assume that under the award, the executive will be allowed to purchase a stock at time  $t = \tau$  at the price

$$S(\tau) - \beta \text{Min}\{S(s); 0 \leq s \leq \tau\} \quad (2.2)$$

where  $\beta (0 \leq \beta \leq 1)$  is called the rebate under the award.

Thus at time  $t=0$ , the value of one executive option would be

$$W = e^{-r\tau} E_0[S(\tau) - \beta \text{Min}\{S(s); 0 \leq s \leq \tau\}] \quad (2.3)$$

where expectation is under risk-neutral measure.

Let  $U(\tau) = \text{Min}\{X(s); 0 \leq s \leq \tau\}$ . (2.4)

Then (2.3) simplifies to  $W = S(0) - \beta S(0)e^{-r\tau} E_Q[e^{U(\tau)}]$  (2.5)

Using the Discussion by Gerber & Shiu in Tiong (2001) the density of the random

variable  $M(\tau)$  where  $M(\tau) = \text{Max}\{X(s); 0 \leq s \leq \tau\}$  is given by

$$f_M(y) = \frac{1}{\sigma\sqrt{\tau}} \phi\left(\frac{y - \mu\tau}{\sigma\sqrt{\tau}}\right) + e^{2\mu/\sigma^2} \frac{1}{\sigma\sqrt{\tau}} \phi\left(\frac{-y - \mu\tau}{\sigma\sqrt{\tau}}\right) - \frac{2\mu}{\sigma^2} e^{2\mu/\sigma^2} \Phi\left(\frac{-y - \mu\tau}{\sigma\sqrt{\tau}}\right); y \geq 0. \quad (2.6)$$

Since  $U(\tau) = -\text{Max}\{-X(s); 0 \leq s \leq \tau\}$ , its density is derived as

$$f_U(u) = \frac{1}{\sigma\sqrt{\tau}} \phi\left(\frac{-u + \mu\tau}{\sigma\sqrt{\tau}}\right) + e^{2\mu/\sigma^2} \frac{1}{\sigma\sqrt{\tau}} \phi\left(\frac{u + \mu\tau}{\sigma\sqrt{\tau}}\right) + \frac{2\mu}{\sigma^2} e^{2\mu/\sigma^2} \Phi\left(\frac{u + \mu\tau}{\sigma\sqrt{\tau}}\right); u \leq 0. \quad (2.7)$$

We state the following lemma without proof.

Lemma

Let  $X$  be a random variable with mean  $\mu_1$  and variance  $\sigma_1^2$ . Then for any real  $\theta$  and  $a$

$$E[e^{aX} I(X > a)] = \Phi\left(\frac{\mu_1 + \sigma_1^2 \theta - a}{\sigma_1}\right) \exp\{\mu_1 \theta + \sigma_1^2 \theta^2 / 2\}. \quad (2.8)$$

Now the value of the award in (2.5) can be represented as

$$W = S(0) - \beta S(0)e^{-r\tau} E[e^U I(U \leq 0; h^*)] \quad (2.9)$$

where  $h$  is the parameter under Esscher transform and

$$\mu + h^* \sigma^2 = r - \delta - \sigma^2 / 2. \quad (\text{see Appendix}) \quad (2.10)$$

Since the density for  $U(\tau)$  in (2.7) has three terms the expectation in (2.9) would have three terms and so we define the following.

Let  $A_i; i=1,2$  and 3 be the  $i$ th term in the expectation of the expression in (2.9) using the density function in (2.7). Then using the result of the lemma directly

$$A_1 = \exp(-r\tau) \int_{-\infty}^0 e^u \phi\left(\frac{-u + \mu^* \tau}{\sigma\sqrt{\tau}}\right) \frac{1}{\sigma\sqrt{\tau}} du = e^{-r\tau} E[e^{-Y} I(Y_1 \geq 0)]$$

where  $Y_1$  is a normal random variable with mean  $-(r - \delta - \sigma^2 / 2)\tau$  and variance  $\sigma^2 \tau$ . Thus, we have

$$A_1 = \exp(-\delta\tau) \Phi((u + \sigma)\sqrt{\tau}) \quad (2.11)$$

where  $u = \frac{r - \delta}{\sigma} - \frac{\sigma}{2}$ ,

Similarly

$$A_2 = e^{-r\tau} \int_0^{\infty} \frac{1}{\sigma\sqrt{\tau}} \phi\left(\frac{-y + r - \delta - \sigma^2 / 2}{\sigma\sqrt{\tau}}\right) dy = e^{-r\tau} E[e^{-kY_2} I(Y_2 \geq 0)] \quad (2.12)$$

where  $k = 2 \frac{(r - \delta)}{\sigma^2}$  and  $Y_2$  is a random variable with mean  $(r - \delta - \sigma^2 / 2)\tau$  and variance  $\sigma^2 \tau$ . Using the lemma again, we have

$$A_2 = \exp\{k\delta + k(k + 1)\sigma^2 / 2 - (k + 1)r\tau\} \Phi((u - k\sigma)\sqrt{\tau}). \quad (2.13)$$

To evaluate the third term we use the fact that under Esscher measure (risk neutral) the corresponding stochastic process for  $\{X(t)\}$  with mean  $\mu$  and variance  $\sigma^2$  per unit time is transferred to another Weiner process with mean  $\mu^* \tau$  and variance  $\sigma^2 \tau$  where  $\mu^* = \mu + h^* \sigma^2 = r - \delta - \sigma^2 / 2$ . Thus the third term of the expectation is given by

$$A_3 = \exp(-r\tau) 2 \frac{(r - \delta - \sigma^2 / 2)}{\sigma^2} \int_{-\infty}^0 \exp\left\{\left(\frac{2\mu^*}{\sigma^2} + 1\right)u\right\} \Phi\left(\frac{u + \mu^* \tau}{\sigma\sqrt{\tau}}\right) du. \quad (2.14)$$

where  $\mu^* = r - \delta - \sigma^2 / 2$ .

Using integration by parts expression in (2.14) is reduced to

$$A_3 = 2e^{-r\tau} \left(\frac{r - \delta - \sigma^2 / 2}{\sigma^2}\right) \left[\frac{1}{k} \Phi\left(\frac{\mu^*}{\sigma}\sqrt{\tau}\right) - \frac{1}{k} E\{e^{-kY_2} I(Y_2 \geq 0)\}\right] \text{ which simplifies to}$$

$$A_3 = \frac{2}{k} \left(\frac{r - \delta - \sigma^2 / 2}{\sigma^2}\right) [e^{-r\tau} \Phi(u\sqrt{\tau}) - A_2]. \quad (2.15)$$

Hence the value at  $t=0$  an award of one rebate option is given by

$$W = S(0) - \beta S(0) [e^{-\delta\tau} \Phi((u + \sigma)\sqrt{\tau}) + \frac{2u}{k\sigma} e^{-r\tau} \Phi(u\sqrt{\tau}) + (1 - \frac{2u}{k\sigma}) \exp\{(k(k + 1) + \delta) \frac{\sigma^2}{2} - (k + 1)r\tau\} \Phi((u - k\sigma)\sqrt{\tau})]. \quad (2.16)$$

when assessment is done in continuous time.

### 3 Rebate assessed in discrete time

The component of the rebate may depend on the stock price at specified points of time, for example on 1<sup>st</sup> January each year so that actual total rebate is assessed by examining the minimum value of the underlying stock price on 1<sup>st</sup> January of each year during the period concerned.

We assume that the rebate is assessed based on the price of the stock at discrete times  $\tau_1, \tau_2, \dots, \tau_m = \tau (0 \leq \tau_1 \leq \tau_2 \leq \dots \leq \tau_m = \tau)$ . The price to be paid at  $t = \tau$  is given as

$$S(\tau) - \beta \text{Min}\{S(\tau_i); i = 1, 2, \dots, m\} \quad (3.1)$$

Special case  $m=2$

Then the value at time  $t=0$  is given by

$$W = e^{-r} E_Q [S(\tau) - \beta \text{Min}\{S(\tau_1), S(\tau)\}] \quad (3.2)$$

where the expectation is with respect to risk-neutral measure.

Then using Esscher transform in the Appendix, its value can be represented as

$$\begin{aligned} W &= S(0) - \frac{\beta S(0)e^{-r\tau}}{E[e^{h^*X(\tau)}]} E[e^{h^*X(\tau)} S(\tau_1) I(S(\tau_1) < S(\tau)) + e^{h^*X(\tau)} S(\tau) I(S(\tau) < S(\tau_1))], \\ &= S(0) - \beta \frac{S(0)e^{-r\tau}}{E[e^{h^*X(\tau)}]} E[e^{h^*X(\tau)+X(\tau_1)} I(X(\tau) > X(\tau_1)) + e^{(h^*+1)X(\tau)} I(X(\tau) < X(\tau_1))]. \end{aligned} \quad (3.3)$$

Let  $X = X(\tau) - X(\tau_1)$  and  $X_1 = X(\tau)$ .

Then  $X$  and  $X_1$  are independent normal random variables.

Hence

$$\begin{aligned} W &= S(0) - \beta \frac{S(0)e^{-r\tau}}{E[e^{h^*X(\tau)}]} E[e^{h^*X+(h^*+1)X_1} I(X > 0) + e^{(h^*+1)(X+X_1)} I(X \leq 0)], \\ &= S(0) - \beta \frac{S(0)e^{-r\tau}}{E[e^{h^*X(\tau)}]} [E[e^{h^*X+(h^*+1)X_1}] P[X > 0; h^*] + E[e^{(h^*+1)(X+X_1)}] P[X \leq 0; h^* + 1]]. \end{aligned} \quad (3.4)$$

Simplifying (3.4), we get the value of the rebate option when  $m=2$

$$W = S(0) [1 - \beta \{e^{-r\tau_1} \Phi(u\sqrt{(\tau-\tau_1)}) + \Phi(-(u+\sigma)\sqrt{(\tau-\tau_1)})\}]. \quad (3.5)$$

General case  $m>2$ .

Using (3.1) and Esscher transform in Appendix, the option value at  $t=0$  becomes

$$W = S(0) - \beta e^{-r\tau_m} \sum_{i=1}^{m-1} \frac{E[e^{h^*X(\tau_m)} S(\tau_i) I(S(\tau_i) < S(\tau)) ; j \neq i, j = 1, 2, \dots, m]}{E[e^{h^*X(\tau_m)}]} \quad (3.6)$$

We now define

$$w_{i,p,q} = X(\tau_i) - X(\tau_{i+1}) \quad \text{and} \quad Y_{p,q} = \sum_{k=p}^{q-1} w_k = X(\tau_i) - X(\tau_q). \quad (3.7)$$

Then

$$W = S(0) [1 - \beta e^{-r\tau_m} \sum_{i=1}^{m-1} A_i] \quad (3.8)$$

where

$$A_i = \frac{E[e^{(h^*+1)Y_i - h^*Y_m} I(Y_{i,m} \leq 0, Y_{i,m-1} \leq 0, \dots, Y_{i,j} \leq 0, \dots, Y_{i,1} \leq 0, i \neq j)]}{E[e^{rX(\tau_m)}]} \quad (3.9)$$

$$V_i = X(\tau_i).$$

As the process  $\{X(t)\}$  has a Brownian motion and if  $j_1 < j_2$  then

$$\text{Cov}\{Y_{i,j_1}, Y_{i,j_2}\} = \sigma^2 (\tau_i - \tau_{j_1}) \quad (3.10)$$

else  $\text{Cov}\{Y_{i,j_1}, Y_{i,j_2}\} = \sigma^2 (\tau_i - \tau_{j_2})$ .

Let  $\Sigma_i$  be the covariance matrix of the vector  $\{Y_{i,m}, Y_{i,m-1}, \dots, Y_{i,j}, \dots, Y_{i,1}\}' ; j \neq i$ .

whose elements are given by (3.10).

Then the simplified form of option value at time  $t=0$  is given by (3.8) where

$$A_i = e^{-r(\tau_m - \tau_i)} F[-u\sqrt{(\tau_m - \tau_i)}, -u\sqrt{(\tau_{m-1} - \tau_i)}, \dots, -u\sqrt{(\tau_i - \tau_1)}; \Sigma_i],$$

and  $F[x_1, x_2, \dots, x_{m-1}; \Sigma_i]$  is the distribution function of the multi-variate normal random vector  $\{Y_{i,m}, Y_{i,m-1}, \dots, Y_{i,j}, \dots, Y_{i,1}\}' ; j \neq i$  with covariance matrix  $\Sigma_i$ .

#### 4. Some Numerical Illustration when assessment is in continuous time

We consider a typical case where  $S(0)=50, r=0.05, \sigma=0.25, \delta=0.02, \tau=10$ . We find that the Black-Scholes value when the exercise price is the same as the stock price at grant is 17.38. We use the formula (2.16) and evaluate the stock option value  $W$  for different rebate values,  $\beta$ . The table below provides the values of  $W$  for  $\beta=0.05$  to 0.80 in steps of 0.05.

It is observed that the option with rebate  $\beta=0.60$  is approximately equal to the Black-Scholes option value where the exercise price is the same as the grant day stock price. Thus it seems that award of executive stock option is more advantageous to the executive compared with normal executive stock option where the exercise price is equal to the grant day stock price.

Table

$\beta$ (Rebate)	W (Option Value)	$\beta$ (Rebate)	W (Option value)
0.05	47.26	0.45	25.33
0.10	44.52	0.50	22.59
0.15	41.78	0.55	19.85
0.20	39.04	0.60	17.11
0.25	36.30	0.65	14.37
0.30	33.55	0.70	11.63
0.35	30.61	0.75	8.89
0.40	28.07	0.80	6.14

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## Appendix

We assume that the price of the underlying stock of the corporation at time  $t$  ( $\geq 0$ ) is represented by  $S(t)$  and that

$$S(t) = S(0)\exp\{X(t)\}, t \geq 0, \quad (\text{A.1})$$

where the stochastic process  $\{X(t)\}$  has stationary and independent increments and is continuous in probability. Furthermore, we assume that  $\{X(t)\}$  has a Brownian motion with mean  $\mu$  per unit time and variance  $\sigma^2$  per unit time.

Let the density function of  $\{X(t)\}$  be  $f(x, t)$ . Following Gerber and Shui (1994a and 1994b), we introduce a new density function given by

$$\frac{\exp(hx)f(x, t)}{E[e^{hx}]} \quad (\text{A2})$$

where the parameter  $h$  is called the Esscher parameter.

We determine the value of the parameter  $h$  (say,  $h = h^*$ ) so that the discounted stock price is arbitrage-free. Thus, if we denote the risk-free rate as  $r$ , then we have

$$S(0) = E[e^{-rt}S(t); h^*] \quad (\text{A.3})$$

where expectation is under the new measure with density given in (2.2).

Suppose the underlying stock pays dividend at a rate  $\delta$  per unit time. This leads to the relation which identifies the value of the Esscher parameter :

$$\mu + h^* \sigma^2 = r - \delta - \frac{\sigma^2}{2}. \quad (\text{A.4})$$

# INCIDENCE AND INCENTIVES FOR THE VOLUNTARY DISCLOSURE OF EMPLOYEE ENTITLEMENT INFORMATION ENCOURAGED UNDER AASB 1028

*Pamela Kent\*, Mark Molesworth*

## Abstract

This paper examines the determinants of voluntary disclosure by firms of employee entitlement actuarial assumptions under AASB 1028. It draws on proprietary costs of information and stakeholder theory to make predictions about factors, which influences the disclosure of the actuarial assumptions. This framework is chosen after a review of alternative theories used to investigate voluntary disclosure. It is found that disclosure is negatively related to the power of firms' employees, and firm economic performance. Disclosures are weakly, positively related to firm size in the multivariate model.

**Key Words:** Voluntary Disclosures, Proprietary Costs, Superannuation

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## Introduction

'AASB 1028 - Accounting for Employee Entitlements' was released by the Australian Accounting Standards Board in March 1994 and had effect from 30 June 1995. It mandates disclosure of employee entitlement information, such as accrued long service leave, accrued sick leave, superannuation entitlements and other post retirement benefits (paragraph 14). The standard specified present value as the preferred means of disclosing liabilities for employee entitlements (paragraph 12). Present value is calculated using a discount rate equal to the national government guaranteed security rate on the securities which have terms to maturity that match, as closely as possible, the terms of the related liabilities (paragraph 13).

The standard encourages disclosure of the actuarial assumptions, which are necessary for calculations of the present value of these entitlements (commentary xlv). This is because users of the financial statements find the present values of employee entitlements more understandable if actuarial assumptions are disclosed (commentary xlv). However, the actuarial assumptions used to compute the present value of employee entitlements (discount rate, term to maturity of the liabilities and assumed increase in employee entitlements to the date of maturity) do not have to be disclosed (see endnote 1).

Stakeholders interested in the ultimate entitlement accruing to employees are interested in the actuarial assumptions. Previous research indicates that Defined Benefit Superannuation Plan valuations (a subset of

employee entitlements) are found to be sensitive to changes in actuarial assumptions and disclosures of the existence of the plans is found to be value relevant (Barth, 1991). Research also indicates that potential proprietary costs are related to lower disclosures of pension information (Scott, 1994).

The research problems identified in this study are to determine the level of voluntary disclosures of actuarial assumptions and predict the characteristics of firms that provide these disclosures. Voluntary disclosure of employee entitlement data is an interesting phenomenon to study for several reasons. First, the Australian Accounting Standards Board in the preface to AASB 1028 notified users of the standards that it would be reviewing and amending the standard's mandated disclosures relating to superannuation entitlements. Amendments to the superannuation entitlement provisions could be extended to all employee entitlements in the standard.

Second, an investigation of the motivation for firms' voluntary disclosure provides information to regulators, which is useful in developing amendments to the standard. Third, previous research has tended to focus on mandated disclosures and neglected voluntary disclosures as a source of information between managers and external parties (Verrecchia, 1990).

This study extends voluntary disclosure research by focusing on the proprietary costs of disclosing actuarial assumptions to the relevant interested stakeholders. Firms with higher proprietary costs associated with actuarial assumptions are less likely to disclose.



This paper is arranged as follows. Section two considers relevant research areas applicable to the voluntary disclosures investigated in this study and developed testable hypotheses about the characteristics of firms voluntarily disclosing the actuarial assumptions used to compute the present value of employee entitlements. Section three describes data collection while section four reports the results of univariate and multivariate statistical tests. Finally, section five concludes with a discussion of the limitations of the paper and suggestions for future research.

## 2. Development of Hypotheses

It is generally accepted that managers disclose non-mandated information after analysing a trade off between costs and benefits to the firm and/or the manager. Relevant costs and benefits must then be identified. Apparent costs of voluntary disclosure include the preparation and dissemination costs associated with disclosure to external parties (Foster, 1986).

Earlier theories of voluntary disclosure focus on management's concern with market valuation of the firm. Firms with favourable private information have an incentive to disclose this information to increase market value. These theories also rely on the reasoning that rational investors know that firms hold private information and have an incentive to disclose favourable information. Thus, rational investors interpret non-disclosure as the firm withholding the most unfavourable information possible. Market value of these nondisclosing firms is therefore expected to decrease. Rationally, firm should disclose all relevant information that is not the worst possible outcome (Grossman, 1981; Milgrom, 1981).

However, firms did not in practice reach this level of disclosure because the costs to firms of disclosing all relevant information are inherently high. General explanations for voluntary disclosures have been investigated using a number of frameworks including proprietary costs (Verrecchia, 1983), political costs (Watts and Zimmerman, 1978), information costs (Diamond, 1985), legitimacy theory (Patten, 1992) and stakeholder theory (Freeman, 1983, 1984). Interested stakeholders and the proprietary nature of the information and its impact on the firms are identified in this study to predict the characteristics of firms that voluntarily disclose the actuarial assumptions. Actuarial assumptions are expected to have higher proprietary costs of disclosure depending on the power of stakeholders most interested in this information. This study uses stakeholder theory to identify interested parties so that appropriate measures of proprietary costs are identified.

Proprietary costs are imposed by a variety of disclosures because the information is 'useful to competitors, shareholders, or employees in a way which is harmful to the firm's prospects even if (or perhaps because) the information is favourable (sic)'

(Verrecchia, 1983, 182). Proprietary costs are a function of the information observed by the manager (Verrecchia, 1983). Managers when estimating proprietary costs of information identify specific stakeholders most interested in the information.

Freeman defined the concept of stakeholders as those who can affect, or are affected by, the accomplishment of the organisational purpose. The term is not technical or restricted and applied to many groups in society. Amongst these groups Freeman (1984) includes owners, customers, employees, suppliers, governments, competitors, consumer advocates, environmentalists, special interest groups and the media. A means of identifying stakeholders associated with higher proprietary costs in a voluntary disclosure context is identifying the directness of their interest in the disclosure under scrutiny. The group of stakeholders with the most direct interest in the actuarial assumptions used by the firms in reaching a present value amount for the employee entitlements is employees of the particular firms. They are interested in these data because this knowledge allows them to calculate their likely benefits at maturity more accurately.

All other stakeholders appeared to have only varying degrees of indirect interest in the information under scrutiny in this study. They are not interested in the disclosures per se, but are interested in the reaction of the employees to the information disclosed. These stakeholders do not interpret non-disclosure of actuarial assumptions as necessarily unfavourable information because they are aware of the potential proprietary costs associated with the disclosures.

Three key stakeholders are included in this grouping. First, shareholders are concerned about the value of their investment if the employees take industrial action over amounts of employee entitlements disclosed. Second, regulators are asked to adjudicate on any such dispute. Finally, creditors are likely to perceive their investment under threat if the employees or regulators take actions, which drive the firm into liquidation. It is rational for firms to control their relationships with the indirect stakeholders by controlling their relationships with each of the stakeholders with direct interests. In this way, firms are able to avoid costly actions with all their stakeholders by avoiding actions which cause the stakeholders who are directly interested in the disclosure under study to impose costs on the firm.

Direct stakeholders for this study are employees and employee groups. The power of these stakeholders is identified as the key determinant for disclosures. Actuarial assumptions are sensitive to higher proprietary costs and political pressures from employee stakeholders because employees are likely to question the actuarial assumptions adopted in determining employee entitlements. It is hypothesised that firms with more powerful employee stakeholders are less likely to disclose actuarial assumptions regardless of the recommendations of AASB 1028.

Higher proprietary costs of disclosure indicated by stakeholder power held by employees are proxied in this study in four ways. First, it is represented by the level of unionisation of the workforce. Unions are collective bargaining organisations, designed to increase the power of employees by aggregating their demands. The rationale behind this aggregation is that the employees combined have more bargaining power than single employees do.

Employees have the ability to impose costs on the firm in a collective and organised manner.

This can be done via strikes, picket lines and other industrial action. Firms are less likely to disclose actuarial assumptions to all employees in annual reports when firms are more highly unionised. Therefore, it is hypothesised that:

*H1: Firms with more highly unionised workforces are less likely to voluntarily disclose employee entitlement actuarial assumptions than firms with less unionised workforces.*

The second proxy for employee stakeholder power is used as a test of robustness of unionisation and also as a way to overcome difficulties in the collection of the first proxy. Labour intensity is used as a variable to measure the extent to which a firm relies on labour to produce wealth, in much the same way as capital intensity measures the proportion of a firm's wealth created in reliance on fixed assets (Jackson and McConnell, 1980). Deegan and Hallam (1991) proposed that higher levels of this variable render a firm more vulnerable to union and/or employee action. Firms more reliant on labour, are more damaged by any action taken by employees or their organising groups and therefore, the less likely the firm is to disclose sensitive employee information. Thus it is hypothesised that:

*H2: Firms with lower levels of labour intensity are more likely to voluntarily disclose employee entitlement actuarial assumptions than firms with higher levels of labour intensity.*

The third proxy used to represent employee stakeholder power is the number of employees employed by the firm, scaled by the firm's total assets. This proxy represents the reliance placed upon labour by the firm, relative to the firm's size. In this way it is a measure of employee power not unlike labour intensity. It is hypothesised that:

*H3: Firms with higher ratios of number of employees to total assets are less likely to voluntarily disclose employee entitlement actuarial assumptions than firms with lower ratios of numbers of employees to total assets.*

A further measure of stakeholder employee power is proxied by the per capita employee entitlement. That is, the employee entitlement as disclosed divided by the number of employees in the firm. The greater this amount, the less likely is the firm to disclose. The firm has greater entitlements such as sick leave, long service leave and superannuation. A limitation of this measure of stakeholder power and related proprietary costs is that home firms are likely to allow only the

employment award mandated entitlements to most employees. Use of the variable is possibly also confounded if any variation in the figure is caused by differences in the mix of types of employee (for example, skilled versus unskilled labour) in the firms. This results in differences because of the alternative staffing structures and not differences in employee power. Matching firms in the sample on the basis of industry partly solves the problem. Firms in the same industry are more likely to have the same overall staffing structures.

It is expected that, all else being equal, some variation exists between firms on this measure that relate to differences other than differences in the award and staffing structures. These differences indicate true variations in stakeholder power and the decision by management to disclose actuarial assumptions. Thus the following is hypothesised.

*H4: Firms with lower average employee entitlement obligations per employee are more likely to voluntarily disclose employee entitlement actuarial assumptions than firms with higher average employee entitlement obligations per employee.*

Further explanations for disclosure other than power of employees are sought to explain the disclosure/non disclosures of actuarial assumptions. The potential for increased proprietary costs imposed through increased demands for employee entitlement are higher when there are large reported profits and higher economic performance (Watts and Zimmerman, 1978). Actuarial assumptions are more sensitive to employee discontent and calls for reassessment of employee entitlements when the firm has good economic performance. Therefore, it is expected that firms with higher economic performance are less likely to disclose actuarial assumptions. This led to hypothesis five as follows.

*H5: Firms with higher economic performance are less likely to voluntarily disclose employee entitlement actuarial assumptions than firms with lower economic performance.*

Past studies in the area of voluntary disclosure have consistently found that the size of firms is positively related to their levels of voluntary disclosure (Ball and Foster, 1982). Given that the present study identifies employees as the relevant stakeholders and the power of these stakeholders should be proxied adequately by the above variables, size should not necessarily be a significant explanation of disclosure. However, past studies have consistently shown size to be an explanation for voluntary disclosure. Size is included as a variable to be measured in the study.

### 3. Data Collection

#### 3.1 Sample Selection

The dependent variable in this study is disclosure of employee entitlement actuarial assumptions as detailed in commentary xlvi of AASB 1028. The theoretical population of potential disclosers is defined

for the purposes of this study to be those firms contained on the Connect 4 CD-ROM database of the Australian Top 500 firms for the first annual report date on or after 30 June 1995 (the date the standard came into force).

This population is chosen for two reasons. First, historically larger firms are more likely to disclose sensitive information. Therefore, this population provides the best opportunity to find a high proportion of disclosing firms. Second, the Connect 4 database has a text search capability, allowing easy identification of disclosing firms. Those firms disclosing are found by a search, limited to the 1995 and 1996 years. This search found 19 firms amongst the Top 500, which disclosed the actuarial assumptions in the first year, ended on or after 30 June 1995 (the date of effect of the standard). Two control firms are sought in the same industry, matched as closely as possible on number of employees<sup>2</sup> to ensure some similarity of size for each of these disclosing firms. These requirements are not possible for some disclosing firms, in which case only one control firm is obtained.

Firms are excluded because financial statements are prepared in accordance with the accounting requirements of the United States and in US dollars (one firm), because employee numbers could not be discovered from any source (one firm) and because annual reports are not available in the Connect 4, AGSM data bases or kept in hard copy form at the University of Queensland Economics Library (three firms). This led to a sample size of 46 firms (18 disclosers and 28 non-disclosers) for which public information is available. Each of these firms is sent a questionnaire asking for details regarding the number of employees engaged in Australia, the unionisation levels of these employees and the number of unions active in the firms' workplace. A second mailing in four weeks is made to increase the response rate. This led to 31 responses (11 disclosers and 20 non-disclosers) representing a response rate of 67 per cent.

### 3.2 Dependent Variable Specification and Collection

AASB 1028 encouraged firms to disclose three assumptions: the term to settlement of the liabilities, the assumed discount rate and the assumed increase in employees' entitlements up to the time of settlement of the liabilities. If any of these disclosures is made, the dependent variable is coded as 1. Non-disclosers are coded 0. Of the disclosing firms in the sample, only one did not disclose all three assumptions. The disclosure not made is of the assumed discount rate. Interested parties could determine this rate by reference to the figure disclosed by the firm regarding the length of time to the settlement of the liabilities and relating this to the discount rate on the government security which most closely matched this term. The use of a dichotomous variable regarding disclosure could therefore be supported.

### 3.3 Independent Variable Specification and Collection

Unionisation of the firms' workforces is collected from the questionnaires sent to the firms and thus is only available for the firms that responded to the mail out. The variable is calculated by taking the firm's number of unionised employees as a proportion of all staff employed by the firm.

The second variable used to measure employee stakeholder power and political sensitivity is labour intensity. This variable is derived from capital intensity and measures the extent to which a firm relied on labour to produce wealth. It is calculated, as proposed by Deegan and Hallam (1991), as:

$$1 - (\text{Net Fixed Assets} / \text{Total Assets})$$

Labour intensity is collectable from the annual reports of all firms in the sample. It therefore overcame the problem of the unionisation variable being dependent upon firms responding to the questionnaire.

The third variable used to measure employees' stakeholder power is the number of staff employed, scaled by the size of the firm. The size of a firm's workforce, relative to the firm's overall size, indicates the power of the employees in much the same way as labour intensity. It shows how much reliance the firm put on labour to create wealth. The number of employees working for each firm is first taken from the questionnaire. If this information is not available because the firm did not respond, the number of employees is taken from the firm's listing in the Business Who's Who of Australia (1995). Per capita employee obligations is obtained by taking the employee obligations at their present value (as disclosed in the notes to the accounts) and dividing by the number of employees as determined for the staff variable above. Economic performance could be proxied by either accounting or market based measures. Accounting based measures provided an advantage over market based measures because market based measures reflect investors' estimates of firms' future performance, whereas a more appropriate measure is an estimate of past or current performance (Ullman, 1985). Market based measures also have the disadvantages that the information content of disclosure potentially influence the market price of the firm and that confounding events make measurement of market based returns unreliable. Accounting based measures also have limitations because earnings are frequently manipulated by management (Holthausen, 1990). They may not accurately reflect the firm's true performance. This study uses returns on assets (ROA) in the year of disclosure as a percentage of the industry average ROA to proxy for economic performance. Economic performance is likely to be related to an industry, as opposed to an economic benchmark. Return on assets (ROA) for this purpose is defined to be net profit before tax divided by total assets as disclosed in each firm's financial statements.

The firms' ROAs are expressed as a proportion of industry ROA provided by the Australian Bureau of Statistics (ABS) in Business Operations and Industry Performance (1995). This publication uses the Australian and New Zealand Industry Classifications which are broader categories than the SIC codes and reduces problems in identifying each firm's industry.

### Control Variable Size

Research indicates that employee numbers, assets and revenues have been used as measures of size. The measure of size used in this paper is the natural log of total assets disclosed in the firms' annual reports.

## 4. Results

### 4.1 Descriptive Statistics

Panel A of Table 1 indicates that variables are approximately normally distributed. Parametric tests have been found to be robust to slight deviations from normality (Burns, 1994). For this reason parametric tests are appropriate. Panel B provides a correlation matrix for the variables. Alternative proxies for employee stakeholder power (unionisation, labour intensity, staff/assets and average employee obligations) are not highly and significantly ( $P < 0.10$ ) correlated with each other with the exception that employee obligations and staff/assets are correlated with  $r = .51$  at  $p = 0.01$ .

#### Insert table 1

### 4.2 Univariate Results

The variables are tested in a univariate setting by independent group t-tests, using Disclose as the grouping variable. Non-parametric univariate (Kruskal-Wallis) tests data produce similar results. Table 2 displays these results.

#### Insert table 2

The table shows that unionisation, labour intensity and staff/assets have significant explanatory power of disclosure. All are in the negative direction as predicted. In contrast, employee obligations, industry ROA and size do not provide significant results.

### 4.3 Logistic Regression Model

A logistic regression model is used to estimate multivariate results in this study because of the dichotomous nature of the dependent variable. The general model is specified as:

$$\text{Disclose} = \beta_0 + \beta_1 \text{ Unionisation} + \beta_2 \text{ Labour Intensity} + \beta_3 \text{ Staff/Assets} + \beta_4 \text{ Employee Obligations} + \beta_5 \text{ ROA vs Industry ROA} + \beta_6 \text{ Size (LogAssets)}$$

The results using the logit model are reproduced in table 3. It can be seen from the table that overall the model is of high explanatory power, with the Chi-

squared statistic significant at less than one percent<sup>3</sup>. Three employee stakeholder power measures are in the negative direction, with staff/assets and employee obligations significant at  $p = 0.02$  and unionisation significant at  $p = 0.10$ . This implies that those firms with more powerful employees are less likely to disclose the actuarial assumptions. Size is positive and weakly significant at  $p = 0.10$  in support of the past voluntary disclosure literature, possibly indicating that larger firms are more likely to disclose voluntary information. The economic performance variable is also significant in the negative direction with  $p = 0.06$ .

#### Insert table 3

Very few firms voluntarily disclose the actuarial assumptions, given that only 19 of the Top 500 chose to disclose. It is unlikely that many more firms voluntarily disclosed this information over the time of the study, as larger firms are more likely to disclose. Mandatory disclosure appears to be the only solution if regulators consider disclosure of actuarial assumptions necessary for users of financial statements.

### 4.4 Non-response Analysis

It is important to analyse the data to determine whether there are any significant differences between those firms that responded to the survey and those which did not because some of the variables for this study are collected by means of a questionnaire. This is done to identify any potential non-response bias in order that it could be taken into account when interpreting the results. Table 4, Panel A provides the results of independent samples t-tests for the continuous independent variables, panel B provides chi-squared tests for the categorical variables and Panel C supplies chi square tests for early and late respondents (Oppenheim, 1966) for the unionisation variable.

#### Insert table 4

The independent samples t-tests in Table 4 shows that the respondents differed significantly from the non-respondents for size. This suggests that smaller firms are less likely to reply because they have a lack of staff designated to process administrative material, including questionnaires. However, this is not a major impediment to the study as size is included as a control variable in the model and the relationship between size and disclosure is not a key issue of the research. The Chi-squared tests in panel B show that there are no significant differences between respondents and non-respondents on disclosure.

It is not possible to compare respondents and non-respondents regarding the unionisation figures because unionisation is not available from any public source. For the purposes of testing it is assumed that later respondents had similar characteristics to non-

respondents (Oppenheim, 1966). To determine whether there is a non-response bias on the variable unionisation, the responses are separated into early and late responses and t-tests are used to compare the two groups. The result reported in panel C, Table 4, shows a weakly significant difference between the early and late respondents. Late respondents had less unionised workforces.

## 5. Conclusions, Limitations and Suggestions for Future Research

A limitation occurs because of the manner in which the information is disclosed to the interested parties. If the information is relevant to only one group of stakeholders (as here) it is potentially less costly for the firms to disclose the information to that group only. As the method of disclosure in this study is the firm's annual report the sampling would not have identified this private disclosure.

Another limitation of this study is the small sample size. This is because of the lack of firms disclosing the information. An external validity problem also arises because of the use of firms from the Top 500. Doubts are potentially cast upon the extent to which the results of this study are generalisable to the entire population of firms. These problems are of lesser concern given that the study shows that larger firms are more likely to disclose. The small number of disclosures also made it impractical to distinguish the different forms of employee entitlements and therefore added another limitation to the study.

A further limitation is the inability to effectively control for industry in the Australian corporate environment by matching firms. Australian firms are very diversified and attempts to match them on the basis of industry are limited. This problem possibly led to industry being an uncontrolled variable in the model. A firm's industry cannot therefore be completely eliminated as an uncontrolled explanation of the voluntary disclosure of the actuarial assumptions.

The limitation of employee obligations per employee has been noted previously. Construct validity problems arise if it cannot be assumed that firms in the same industry employ approximately the same mix of types of workers and that some firms allow greater than the award mandated entitlements to their employees. In this case, the variable would not measure the proprietary costs of disclosure of firms in the sample. Instead, the variable measures differences in the firms' workforce mix or differences in award structures between firms.

This study looks at the disclosure by firms in the year in which the standard came into force. It is useful to determine whether firms change their disclosure decisions over time and provide reasons for this change. If it is possible to access greater numbers of firms' annual reports (for example, all firms listed on the Australian Stock Exchange) in a form allowing a

text search (as on the Connect-4 database) the study could be replicated using a larger sample of disclosing firms. However, given the apparent size effect found by this study, it may be questioned whether there would be many disclosers outside the Top 500.)

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## Appendices

**Table 1.** Panel A - Descriptive Statistics of Data

Variable	Min	Max	Mean	Std Dev.	Skew-ness	Kurtosis
Unionisation	0.00	0.80	0.22	0.22	0.89	-0.25
Labour Intensity	0.08	0.99	0.36	0.24	0.85	-0.15
Staff/ Assets	1.00	12.23	4.72	3.66	0.94	-0.59
Employee Obligations	0.00	0.01	0.01	0.01	1.13	0.25
ROA vs Industry	-1.45	4.31	1.38	1.35	0.38	0.10
Size (Log Assets)	2.86	7.95	5.09	1.17	0.31	-0.15

Panel B - Pearson Correlation Matrix

	Disclose	Unionisation	Labour Intensity	Staff/ Assets	Employee Obligations	ROA vs Industry	Size (Log Assets)
Disclose	1						
Unionisation	-0.24 (0.19)	1					
Labour Intensity	-0.26 (0.14)	-0.04 (0.79)	1				
Staff/ Assets	-0.44 (0.013)	0.04 (0.81)	0.28 (0.11)	1			
Employee Obligations	-0.05 (0.78)	0.26 (0.15)	0.01 (0.93)	-0.51 (0.01)	1		
ROA vs Industry	-0.26 (0.15)	0.16 (0.36)	-0.08 (0.65)	-0.01 (0.97)	-0.06 (0.72)	1	
Size (Log Assets)	0.02 (0.89)	0.58 (0.00)	-0.24 (0.18)	-0.07 (0.67)	0.43 (0.01)	-0.08 (0.65)	1

**Table 2.** T Test Results for Disclosers and Non Disclosers

Independent samples t-tests.

Disclose:	Yes		No		t	p one tailed
	Mean	Std Dev.	Mean	Std Dev.		
Unionisation	0.15	0.18	0.26	0.24	-1.33	0.09
Labour Intensity	0.29	0.19	0.38	0.24	-1.36	0.09
Staff/Assets	2.58	1.57	5.28	4.16	-2.62	0.006
Employee Obligations	0.007	0.004	0.006	0.006	1.05	0.14
ROA vs Industry	1.09	1.38	1.52	1.69	-0.89	0.18
Size (Log Assets)	5.55	1.43	5.29	1.33	0.64	0.52*

\* two tailed

**Table 3.** Logistic Regression Model Predicting Disclosure of Actuarial Assumptions

Variable	Coefficient	Standard Error	t	p one tailed
Constant	-0.86	3.67	-0.23	0.81*
Unionisation	-5.03	3.93	-1.28	0.10
Labour Intensity	-0.07	3.41	-0.02	0.49
Staff/ Assets	-0.95	0.44	-2.15	0.02
Employee Obligations	-467.60	225.31	-2.07	0.02
ROA vs Industry	-0.91	0.58	-1.55	0.06
Size (Log Assets)	1.65	1.00	1.65	0.10*

 $\chi^2 = 19.31$  p = 0.004

\* Two tailed test

**Table 4.** Panel A - Non-Response Analysis - Independent Samples t-tests

Respond:	Yes		No		t	p two tailed
	Mean	Std Dev.	Mean	Std Dev.		
Labour Intensity	0.36	0.24	0.31	0.18	0.73	0.46
Staff/Assets	4.72	3.66	3.18	3.43	1.36	0.17
Employee Obligations	0.006	0.005	0.007	0.005	-0.99	0.32
ROA vs Industry	1.38	1.35	1.28	2.02	0.19	0.84
ln (Size Assets)	5.09	1.17	6.03	1.54	-2.29	0.02

Panel B - Chi-Squared Goodness of Fit Tests

Respond vs Disclosure

Disclosure:	Yes	No	Total
Respond: Yes	11	20	31
No	7	8	15
Total	18	28	46

 $\chi^2 = 0.53$  p = 0.46

Panel C - Unionisation Variable for Early and Late Respondents

Response Time	Early		Late		t	p two tailed
	Mean	Std Dev.	Mean	Std Dev.		
Unionisation	0.29	0.27	0.15	0.14	1.71	0.09

## Endnotes

1 Commentary xlvii of AASB 1028, while not mandating disclosure, encouraged reporting entities to disclose:

“the weighted average of each of :

- (a) the assumed rates of increase in the annual employee entitlements of persons who are employees at the reporting date, over the periods to the settlement of the liabilities;
- (b) the discount rates used to measure liabilities at their present value; and
- (c) the terms to settlement of the liabilities.”

2 Disclosed by Australian Business Rankings (1994)

3 The variance inflation factor for each independent variable is calculated to determine whether multicollinearity is likely to affect the results of any multiple regression testing. Each independent variable is regressed against all of the other variables using the multiple ordinary least squares regression model. None of the variables is correlated with the others to an extent that is likely to invalidate results.

## FINANCIAL POLICY DETERMINANTS: EVIDENCE FROM A NESTED LOGIT MODEL\*

Nicolas Couderc\*\*

### Abstract

How do managers set financial policy? The aim of this paper is to document the driving factors of the financial policy choice and to evaluate the relevance of two alternative theories, the trade-off theory and the pecking order theory. We use a database of 3,659 firms, over the period 1991-2002; our study relies upon the estimation of two qualitative variable models, a multinomial logit model and a nested logit model. We show that trade-off models are more pertinent than pecking-order models so as to explain the financial policy choice of a firm, but none of these models are sufficient to explain all our results.

**Keywords:** Financial policy, pecking order theory, trade-off theory, qualitative variable models.

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### 1. Introduction

How does a CEO or a CFO set financial policy? Since the seminal papers by Modigliani and Miller (1958 and 1961) and the debate that followed, it's well known that all their results about the capital structure and dividend policies and the firm's value are valid only under strong hypotheses (no taxation on firms or on investors, no transaction or bankruptcy costs, no imperfections on the capital market, that is no agency costs and no information asymmetries). A vast amount of literature has been published since 1958, a large part of it focused, both from an empirical and a theoretical point of view, on the understanding of the consequences of the rejection of one hypothesis of Modigliani and Miller and the driving factors of capital structure. In spite of several papers on the subject, the question is not settled yet (Myers, 1993; Opler and Titman, 1996). To address how firms manage their financial policy, we document in this paper the determinants of financial choices. We focus on flows (financial policy) rather than stocks (capital structure), because the capital structure of a firm is the result of many outdated choices. Moreover, we focus on the financial policies which affect the external funds available for the firm, since the determinants of the internal funds available are extensively studied by others (Opler, Pinkowitz, Stulz and Williamson, 1999; see also Couderc, 2005) and are, to a large extent, independent of the will of the firm.

The first contribution of this paper is to study these financial choices using a qualitative variable model framework. Polychotomous qualitative variable

models, such as the multinomial logit, allow an analysis of a choice between more than two alternatives. We thus avoid reducing artificially the choice of a financial policy to a binary choice. To our knowledge, only a few papers use this class of models in such a research design, such as Denis and Mihov (2003), focusing on the choice between different types of debt, Gaud, Hoesli and Bender (2005), about the debt-equity choice or Helwege and Liang (1996), about all external types of financing. In addition to financial policies identified by these studies, we also consider the financial policies aiming at reducing the quantity of external funds available for the firm, such as share buy-backs and reduction of indebtedness.

Our second contribution is to implement a nested logit model in order to model the financial policy choice as a two-step process: first, the firm chooses the level of external funds relatively to the one it used in the preceding period. It's a three-alternative choice: the desired level can be higher, stay the same or be lower than the actual level. In a second step, the firm chooses the best financial policy in order to raise, stabilize, or give back funds to bondholders, banks or shareholders. We use our results to assess the relevance of the two main theories about the financial policy choices, the trade-off theory and the pecking order theory.

We propose a brief and partial survey of theoretical and empirical studies devoted to our subject in section 2. The sample selection and the variables' definition are presented in section 3. We then turn to the empirical results in section 4 and section 5 concludes.



## 2. Determinants of financial policy: theory and evidence

Modigliani and Miller (1958), as well as the neo-classic theory of investment (Jorgenson, 1963 or Tobin, 1969) refer to a representative firm; the optimal level of investment can be determined without considering financial variables: for each firm, the cost of capital is set on an efficient financial market; this cost determines a minimal level of profitability, given the firm-specific risk. Above this minimal level of profitability, all the investments of the firm are financed by the bond or stock market.

Given the existence of moral hazard and asymmetries of information, concurrence between firms on financial market is not perfect. Two alternative theoretical models currently prevail in the literature in order to explain the consequences of such imperfections: the trade-off model that considers the optimal financial policy as an adjustment process towards a target leverage ratio and the pecking order model, that considers the optimal financial policy as a function of the capacity of the firm to generate internal financing and on market conditions. In the latter model, the target leverage ratio is less important (section 2.1). These two concurrent models have been extensively tested, aiming at validating one or the other. Because of the vast number of empirical studies on the subject<sup>2</sup>, we only present in section 2.2 the empirical studies which use qualitative choice models.

### 2.1. The trade-off theory (TOT) and the pecking order theory (POT)

The TOT, especially in its static version, assumes that a firm chooses a mix of external financing sources in order to maximize its value (and thus the shareholders' wealth). Its choice is based upon an implicit targeted optimal capital structure, which is a function of the marginal cost of each source of external funds. For example, among the main determinants of marginal costs and benefits of debt, one can find the existence of debt tax shields (Modigliani and Miller, 1963; Miller and Scholes, 1978), of financial distress costs (Stiglitz, 1972 and Titman, 1984) and of agency costs (Jensen and Meckling, 1976; Stultz, 1990; Hart and Moore, 1995). Financial policy therefore consists in an optimization process under constraints; a firm increases (resp. decreases) its leverage ratio when it is lower (resp. higher) than the optimal leverage ratio. In the dynamic version of the trade-off model (Leland, 1998), temporary deviations between the observed leverage ratio and the targeted ratio are allowed, due to the existence of adjustment costs. Thus, optimal financial policy consists in making adjustments when the costs of deviation (caused by a non-optimal financial structure) exceed the adjustment costs. The TOT postulates that the target leverage ratio is function of

the size of the firm, its perspectives of growth, the magnitude of transaction costs and the degree of assets' specificity; the leverage ratio should come back progressively to the target.

The POT was first introduced by Myers and Majluf (1984) and Myers (1984). This theory relies upon the existence of information asymmetries between insiders (e.g. managers ...) and external investors (e.g. bond and stockholders). To protect themselves from managerial discretionary decisions and from adverse selection risk (because of such information asymmetries), external investors require an additional risk premium, function of the magnitude of the information asymmetries. This magnitude is related to the type of financing involved (bondholders are less subject to managerial discretion than stockholders, for instance), the financial health, the quantity of information revealed by the manager and some firm-specific determinants (corporate governance mechanisms, ownership structure ...). Because of these costs, a maximum debt ratio exists, the debt capacity of the firm (Myers and Majluf, 1984), but no targeted leverage ratio.

If such information asymmetries exist, a manager can lower the informational costs and thus lead to a change in the firm's financial policy. The firm can indeed minimize these costs by choosing sources of funds that are least affected by these costs. In consequence, according to the POT, firms always prefer internal financing over debt issuance and debt issuance over equity issuance, because information costs related to these sources of funds are different. Furthermore, the manager can have incentives to stockpile cash or liquid assets. This financial slack provides flexibility and therefore allows the firm to avoid information asymmetry costs (but the managerial discretion is increased, since the liquid assets can be spent by the manager without control; Jensen, 1986).

### 2.2. Empirical evidence

Both theories have been widely tested. No dominant model emerges from these studies, probably because several empirical results can be interpreted as supportive for both frameworks. Among the numerous existing empirical studies, we detail only studies using a qualitative variable model approach.

Empirically, much emphasis has been placed on analyzing the determinants of the leverage ratio. Titman and Wessels (1988, US), Rajan and Zingales (1995, G7), Miguel and Pintado (2001, Spain), Ozkan (2001, UK), and Gaud, Jania, Hoesli and Bender (2005, Switzerland) test several assumptions in order to understand which theory has the greatest relevance. The positive impact of firm size, growth opportunities, marginal tax rate and tangibility ratio on observed leverage ratios is viewed as being in accordance with to the trade-off theory, whereas the negative impact of profitability as representing adequately to the pecking

<sup>2</sup> See the survey by Harris and Raviv (1991).

order theory<sup>2</sup>. Hovakimian and al. (2001), comparing the characteristics of U.S. firms which issued equity between 1976 and 1993 to those which increased their use of debt financing, also find evidence to support the TOT. They use a partial adjustment model in order to test the dynamic version of the TOT. They find that when firms adjust their capital structures, they tend to move toward a target leverage ratio, in line with the trade-off theory predictions. The target leverage ratio may change over time as the firm's profitability and stock price change. These results are confirmed by Remolona (1990) and Gaud, Hoesli and Bender (2005), who establish that implicit target ratios are different across countries and speed of adjustment is higher in the United States than in Europe, and than in Japan.

Another group of studies is devoted to the debt-equity choice<sup>3</sup>; Marsh (1982) uses a logit model to show that the existence of a gap between the leverage ratio and the target ratio is a key determinant of debt-equity choice. In particular, he concludes that the issuance of shares is more probable when the leverage ratio is higher than the implicit target ratio. These initial results were confirmed by several studies, in particular Mackie-Mason (1990) and Jung and al. (1996). Market performance is also found to positively impact the probability of a share issuance. Hovakimian (2004) and Hovakimian and al (2004) add that the debt-equity choice is driven by two additional factors, the evolution of the stock price and the operational performance of the firm. Helwege and Liang (1996) examine the financing choices of the US firms which became public in 1984: they use logit models to determine the variables influencing the choice between internal and external funds and the choice of the external financing source. They conclude that the probability of obtaining external funds is not correlated with the lack of internal funds (a result in contradiction with the POT) and that the external financing is inertial: the firms which raised external funds recently are those which are the most likely to raise again external funds). Their results are confirmed by De Haan and Hinloopen (2003), with the same methodology and by De Jong and Veld (2001). These two studies focus on Dutch companies.

Some evidence support the POT. First, Gaud, Hoesli and Bender (2005) mitigate all the previous results by noting that the targeted debt ratio seems to become a key factor for explaining financial choices only when it crosses an upper threshold, but except this case, the theoretical predictions of the POT are essentially validated for all the firms under the threshold: when possible, firms use first their available internal funds, before issuing debt and then shares.

Other studies supporting the POT exist. Gardner and Trzcinka (1992) use a simple logit to test the assumption of Myers (1977) concerning the relation between the growth opportunities of a firm and its level of debt. Jordan and al. (1998) follow the same logic to model the consequences of the financial policy on the structure of the capital of the company. Klein and Belt (1994) test on US firms the choice between internal and external financing and model the probability of choosing a financing by issuing shares or debt. They show that the firms which experience the strongest growth and which are the most efficient are those which will raise the more external funds. Last, Shyam-Sunder and Myers (1999) report that a pecking order model clearly outperforms a target-adjustment model in explaining the time-series variation in leverage ratios.

### 3. Sample selection and variable definition

#### 3.1. Sample selection and variable definition

Our data is drawn from two sources. Yearly accounting data is from the Osiris database<sup>4</sup>. Market data comes from Datastream. The initial sample from Osiris covers 10,240 firms according to the following criteria of inclusion: net sales greater or equal to USD 1 million, number of employees greater or equal to 50, availability of the data for a minimum time period of four years and no major events in the life of the firm such as merger or acquisition or bankruptcy. We drop, in keeping with common practice, banks, financial institutions and insurance companies, defined according to the Fama and French (1997) classification. We also drop 22 firms with no reported sector or partially or totally owned by the government. After merging the data from both databases, we obtain data for 7,241 firms. When the variables resulting are not expressed in the same currency, we use OECD exchange rates. To guarantee the consistency of our data, we exclude from the sample the firms reporting non-credible values after a checking by hand and those for which we have two different and irreconcilable values for the same variable in the two databases<sup>5</sup>. This procedure leads us to eliminate 1,943 firms. We do not keep observations relative to more or less than 12 months years (changes in the date of beginning or ending of the "accountancy year"). Finally, we drop out of the sample all the firms coming from countries with less than 100 firms in the sample, as well as the Canadian firms (the Osiris data

<sup>2</sup> See also Gaud, Jania, Hoesli and Bender (2005), on Swiss firms, Miguel and Pintado (2001) on Spanish firms, Rajan and Zingales (1995) on G7 firms and Ozkan (2001) on UK firms.

<sup>3</sup> Two important studies on the subject, but not relying upon the qualitative variable models are Jalilvand and Harris (1984) and Bayless and Chaplinsky (1991).

<sup>4</sup> Osiris is a database provided by the Bureau Van Dijk. It gathers the financial statements of more than 24 000 firms over an average time period of 15 years. These statements are available "as is" or on a standardized basis. For details about the standardization procedures, see Bureau Van Dijk, (2003). We use the DVD version (October 2003) of the base.

<sup>5</sup> These robustness checks have been performed on all the variables included in both databases: number of existing shares, market capitalization, P/E ratio...

for these firms is far too incomplete), corresponding to 1,639 firms.

The final database thus includes 3,659 firms, over a minimum time period of 4 years and a maximum time period of 11 years (1991-2002). The firms in the sample belong to the following countries: France (254 firms), Great-Britain (733), Germany (343) and the United States (2,329 firms).

We use the standard definitions of variable. The size of a firm is the natural log of the size of its balance sheet. The profitability of the firm is approximated with its gross margin rate. We consider the gross margin rate and not the net margin rate, because the former is a better proxy for operating performance. The availability of internal funds is measured by the ratio cash flow on total assets. A higher value for this ratio means that the firm has a higher capacity to generate financial slack and to rely upon internal financing. The leverage ratio is defined as the ratio of the total financial debt on total assets. For one given firm and year, the target leverage ratio used in our regressions is defined as the median leverage ratio of its industry peers<sup>6</sup>. Finally, investment rate and Tobin's q are computed as usual. The former variable accounts for the firm's need of funds and the latter accounts for the market valuation of the firm and its growth opportunities. Table 1 provides the variable definition. For each variable, we provide its calculation mode starting from the data items from Osiris (OS\_000) or Datastream (DS\_000). In order to minimize the impact of outliers, the items used to define our variables were winsorized at 1% both sides<sup>7</sup>.

[Please insert Table 1 here]

### 3.2. Financial policy definitions

We identify six mutually exclusive financial policies. Financial policy 1 refers to a situation in which the firm has the same quantity of external funds at the end of the year than at the beginning. Financial policies 2, 3 and 4 provide to the firm more external funds. Financial policies 5 and 6 reduce the amount of external funds available<sup>8</sup>. Here are the six financial policies:

<sup>6</sup> We define the industry peers as the firms belonging to the same sector, following the Fama and French (1997) classification. Alternative definitions of industry peers have been tested (industry identified by the three-digit SIC code, for instance), the main results do not change.

<sup>7</sup> Descriptive statistics are provided in section 4.2, below.

<sup>8</sup> All the figures are considered on a *net* basis. Many firms have borrowed money and have paid back some debts in the same time. We consider only the net change over the year. Moreover, the changes in the number of outstanding shares or in the leverage ratio lower than 5% are not taken into account. Namely, a firm with no change in its leverage ratio and an annual increase of the number of outstanding shares of 2% is supposed to have followed the financial policy 1 (no changes). This is because numerous factors can affect these variables, without any significance for the corporate financial policy: after the exercise of a bulk of stock-options by the CEO, the

Financial policy 1 (NO\_CHG): The financial policy implemented by the firm at year n doesn't change the capital structure of the firm.

Financial policy 2 (SHR\_ISS): The financial policy consists in issuing new shares without changes in the firm leverage ratio.

Financial policy 3 (DEBT\_ISS): The leverage ratio of the firm increases, while the firm doesn't issue shares.

Financial policy 4 (SHRDEBT\_ISS): The leverage ratio and the number of outstanding shares are increased.

Financial policy 5 (DEBT\_REDUCE): The firm reduces its leverage ratio and doesn't change its number of outstanding shares.

Financial policy 6 (SHR\_BB): The firm buys back its shares without changing its leverage ratio.

Table 2 summarizes the frequencies of each financial policy, by country and year.

[Please insert Table 2 here]

The frequencies of the financial policies are about stable during the time period and these financial policies are nearly uniformly frequent across the four countries of the study, with the notable exception of the shares buy-backs, three times more frequent in the United States (6 % of the observations) than elsewhere.

## 4. Empirical results

We first justify our methodology (4.1) and then present our empirical results (4.2).

### 4.1. Methodology

We empirically examine the determinants of the choice of financial policy. Our econometric research design should provide information about the reason why firms choose a particular financial policy. Our methodology must fulfill the following requirements. First, the chosen methodology must explain a qualitative choice between more than two outcomes (here, we basically have 6 different alternatives). Second, the methodology must be able to take into account both firm-specific as well as alternative-specific variables and must allow different decision-making processes. It should be possible to test two main structures, a one-step decision process (i.e. the firm decides one financial policy out of the six different available financial policies) and a two-step decision process (i.e. the firm first chooses the level of external funds and then the financial policy in order to achieve its goal). The third requirement is that the methodology must allow for a comparison of the predictive power of the two decision processes.

According to these constraints, we decide to implement two logit models. These models estimate why a firm chooses a financial policy or another. The

total number of outstanding shares will be slightly increased. It means nothing for the financial policy of the firm.

first model we implement is a multinomial logit model, which is typically used when the choice set is broader than two outcomes. Here we have 6 different outcomes, corresponding to the 6 different financial policy outlined in section 3.2.

To model the two-step decision process, (a sequential choice), the use of a nested logit model is natural (Ben-Akiva and Lerman, 1976). However, we do not strictly assume that the choice of the financial policy is a sequential process. In this model, we only require that some variables affect groups of decisions. The tested nesting hierarchy, as represented in figure 1, is largely intuitive<sup>9</sup>. In a first step, the firm decides to raise external funds, to give back funds to share or bondholders or to do nothing. At this stage, the right-hand side variables only determine the desired level of funds, without indication of the financial policy that will be implemented in order to achieve the firm's goal. Thereafter, conditional on this first choice, the effective financial policy is chosen, based upon alternative-specific variables. Hence, different variables are driving the first- and second-step decision.

**[Please insert Figure 1 here]**

In order to compare the two models, we must be aware that neither of the two models is a constrained version of the other. But several standard methods making use of the likelihood function can be employed. One can focus on the comparison between the predicted outcome and the actual outcome. The comparison can also rely upon the usual goodness-of-fit measures.

#### 4.2. The determinants of a financial policy: empirical results

After a discussion of the summary statistics, the results of each model are analyzed. Table 3 provides usual descriptive statistics of the variables.

**[Please insert Table 3 here]**

For all countries, the leverage ratios are lower than usual figures, since we don't have taken into account all types of debt, but only the long term debt bearing interest. The only relevant point is that French firms are larger and more leveraged than firms from other countries. Turning to the gap between real leverage ratio and target ratio, one can note that French firms have, on average, a higher debt than their target, whereas it is the opposite in all other countries.

We first implement a multinomial logit model in order to assess the financial policy determinants. Our model is supported by the data, since the pseudo-R<sup>2</sup> is

.221 and the count-R<sup>2</sup> is above 50%<sup>10</sup>. Moreover, the Hausman and Mc Fadden (1984) tests don't reject the IIA hypothesis for all alternatives. Additional usual robustness checks don't allow us to reject the model<sup>11</sup>, and several alternative specifications were tested<sup>12</sup>, without major changes in our results. We present in table 4 the marginal effects of each independent variable on the left-hand side variable, when other variables are at their medians. These marginal effects are more suitable for direct interpretation; the marginal effect of a variable represents its implicit effect on the probability that the considered financial policy is chosen. For instance, the negative marginal effect of MARG of  $-.032$  for the financial policy SHR\_ISS (share issuance) means that a 1% increase of the gross margin rate decreases by 3.2% the probability of a share issuance, for a firm which has median size, median investment rate, etc.

We also provide the predicted probabilities to choose a financial policy rather than another, according to the value of a variable considered independently of the others (see figures 2 to 7). The first graph shows the influence of the variable SIZE on the probability of choosing one particular financial policy. Large firms have a higher probability to choose the "no change" financial policy and a lower probability to proceed to an increase of their indebtedness (DEBT\_ISS). The influences of SIZE, MARG and TOB on the predicted probabilities are quite linear. On the contrary, the evolutions of the probabilities are much atypical with regard to the three other variables. By analyzing at the same time the predicted probabilities and the marginal effects, one can draw some remarks.

Larger firms (SIZE) are more likely to do nothing, to issue shares or to issue at the same time shares and bonds. But the size is not a significant determinant for the increase of indebtedness. This can make sense, because all the firms included in the panel are already quite large and listed on a stock market, so even the smallest firm in the sample doesn't suffer from insufficient signaling. We observe that the profitability of firms (MARG) has a positive impact on the probability of issuing debt rather than equity or both, in line with tradeoff models, but contradictory with the pecking order theory. These results are coherent with those of Hovakimian and al. (2004) and Gaud and al. (2005). Thus, debt financing has specific advantages as disciplinary strength and/or tax shield for profitable

<sup>10</sup> The count-R<sup>2</sup> is the number of correct predictions over the total number of predictions. The perfect model will have a count-R<sup>2</sup> of 1. When we account for the number of correct classifications which can be obtained by a naïve model, we obtain an adjusted count-R<sup>2</sup> of .345.

<sup>11</sup> For instance, the LR-tests don't reject at 1% the non-nullity of the coefficients. Wald tests reject all combination of alternatives (Minimal value of  $\chi^2$  for the Wald tests: 381.511, with 64 degrees of freedom).

<sup>12</sup> These specifications involve alternatively different definitions of variables and/or winsorizations, inclusion of firm-specific dummies, inclusion of interaction terms, etc. The results are not presented here and are available on demand.

<sup>9</sup> However, alternative nesting hierarchies have been tested, grouping the alternative by the nature of the external funds involved, for instance. In this case, one inclusive value was significantly above 1, indicating a specification issue.

firms. The CASH coefficient is positive for the DEBT\_ISS policy. An increase of the margin rate or of the availability of internal funds gives incentives to the firm to increase its indebtedness, maybe because of a rise of the target. It seems that firms use their internal funds and their margin rate as a kind of “collateral” to borrow more funds (see and Hovakimian and al., 2004 and Couderc and Jestaz, 2004 for a theoretical model). CASH doesn’t influence the share-oriented financial policies; this result is in contradiction with the pecking order theory. Supporting the trade-off theory, the GAP<sup>13</sup> variable is highly significant and negatively correlated with the probability of an increase of the leverage ratio (DEBT\_ISS and SHRDEBT\_ISS financial policies), and the probability of a reduction of indebtedness (financial policy 5) is increasing with the gap. But this gap also reduces the probability of issuing shares and increases the probability of shares buy-backs. In other words, firms don’t actively manage their share issuances or buy-backs in order to adjust their leverage ratio, because the amount of outstanding equity seems to change procyclically with the GAP variable. This perfectly supports the idea of an implicit target leverage ratio, but no trade-off between equity-oriented financial policies and debt-oriented financial policies emerges. To sum up, firms act as if they have a target indebtedness rate, and adjust their leverage ratio in order to attain the desired level.

The probability of the financial policies 2 to 4 (increase of the level of external funds) is correlated with high investment rate (INV), whereas firms with a low investment rate are more likely to reduce external funds, either by share buy-backs or decrease of indebtedness. More precisely, one can note that the predicted probabilities of financial policies 2, 3 and 4 increase with the investment rate, but something like a pecking order seems to appear (see figure): while the investment rate increases, the likelihood of the DEBT\_ISS financial policy increases first, followed (for higher investment rates) by the predicted probability of financial policies SHR\_ISS, then SHRDEBT\_ISS.

Tobin’s q coefficients (TOB) are coherent with previous results and common intuition: firms tend to issue shares when Tobin’s q is high, and to buy-back shares when Tobin’s q is low. This result is consistent with the market timing hypothesis, a high valuation of the firm by the stock market increases the probability of equity issuance (but doesn’t change the probability of increasing indebtedness), low valuation reduces the probability; these results are consistent with those of Jung and al. (1996).

**[Please insert Table 4 here]**

**[Please insert Figures 2 to 7 here]**

<sup>13</sup> A high gap value means that the firm has a over-optimal leverage ratio.

One of the drawbacks of the multinomial logit model is related to its limitation concerning the alternative-specific variables. It doesn’t allow us to take into account the different proximity which can exist between two of the financial policies. Nevertheless, it is allowed to think that the financial policies SHR\_ISS, DEBT\_ISS and SHR\_DEBT\_ISS are part of a coherent group (financial policies aiming at increasing the level of external funds), just as the financial policies DEBT\_REDUC and SHR\_BB (decrease of external funds). Some of our results commented above support this hypothesis: the coefficients for the INV, GAP, or TOB are clearly different across these two groups of financial policies.

Table 5 presents the results of the implementation of the nested logit model. Coefficients for the inclusive values are reported at the bottom of the table. This model highlights the relevance of the nested logit approach to analyze the financial policy choices: usual tests support the nesting hierarchy and the specification<sup>14</sup>. Moreover, the count-R<sup>2</sup> is higher than it was in the multinomial logit model, indicating that the nested logit model better fits to the data. The inclusive values parameters that are highly significant and within the [0-1] range, which indicates that the tree structure is indeed relevant<sup>15</sup>. This means that the proximity of the alternatives within nests is higher than across nests. The two-step nesting hierarchy seems to fit well with the data: the firm first decides to raise, stabilize or reduce the level of external funds available and, in a second step, chooses the way to achieve its goal.

The first step is obviously influenced by firm-specific variables (i.e. the right-hand side variables of the previously estimated model). We present the variables interacting with two nest-specific dummies. This allows variables to play a different role across nests. For instance, SIZE influences negatively the probability for a firm to choose the nest “Decrease in the external funds available” (DEC\_SIZE, coef.: – .074, significant at 1%) rather than doing nothing and positively influences (INC\_SIZE) the probability of choosing the “increase the level of external funds” nest. The coefficients are strongly coherent with those presented in table 4: the investment rate is positively correlated with the probability of an external funds increase, and negatively with a decrease. The same logic can be followed for the GAP and TOB variables. To cap it all, the probability of issuing bonds, shares or both is positively correlated with size, low margin rate, low investment rate, high Tobin’s q, negatively correlated with higher GAP and independent from the cash flow to total assets ratio.

<sup>14</sup> A LR-test against the constant-only model indicates that the model is significant ( $p$ -value=0.00). The LR-test for the nested structure against the non-nested structure supports the use of the nested logit model with our data ( $p$ -value =0.00).

<sup>15</sup> The inclusive value for the NO\_CHANGE nest is non significant, because it is a degenerate nest. Its value is arbitrarily constrained to 1.

In a second step, the firm chooses the way to achieve its goal in terms of quantity of external funds. At this step, all the firm-specific variables have been taken in account, and the choice of the firm can only be influenced by some alternative-specific variables. Among the potential pertinent variables, one can think about the facial cost of the financial policies or about the corporate governance consequences of each financial policy. Due to data limitations, we focus on the facial cost of the financial policies. Within each nest, the choice of the firm strongly depends on the apparent cost of the policy. The coefficient is negative and significant at 1%; this means that the alternatives with higher facial costs are less likely to be chosen by the firms. To say it differently, firms don't believe in the Modigliani-Miller theorems.

**[Please insert Table 5 here]**

## 5. Conclusion

The aim of our paper is to provide additional evidence about the determinants of the choice of a financial policy, using a database of 3,659 firms over the time period 1991-2002. We test the relevance of pecking order and trade-off models. We implement two qualitative choice models, a multinomial and a nested logit models.

We show that the choice of a financial policy is influenced by several factors, both economic (investment rate) and financial (Tobin's  $q$ ). To cap it all, firms with high profitability rely mainly upon internal funds. Firms don't issue or buy-back shares in order to offset the deviation from their target leverage ratio; these financial policies are also independent from the quantity of internal funds generated by the firm. Shares issues and buy-backs are influenced by the market conditions, confirming the market timing hypothesis. Finally, the trade-off theory is largely supported by our results (existence of a target leverage ratio, use of internal funds as a "collateral" to borrow more). But the different facial costs of the financial policies also play a significant role in the choice of the firms. The implementation of a new empirical strategy to test the relative relevance of the pecking order and the trade-off theories allow us to provide more evidence in favor of the trade-off theory than of the pecking-order theory. According to our results, as well as results provided by other studies, a better understanding of the financial policies determinants should be to develop a broader and more flexible model, able to consider these financial choices as complex and probably non-linear functions of financial variables.

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## Appendices

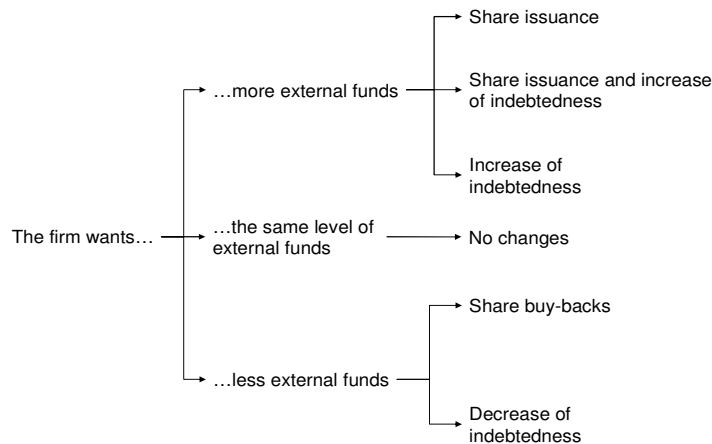


Figure 1. Nesting hierarchy

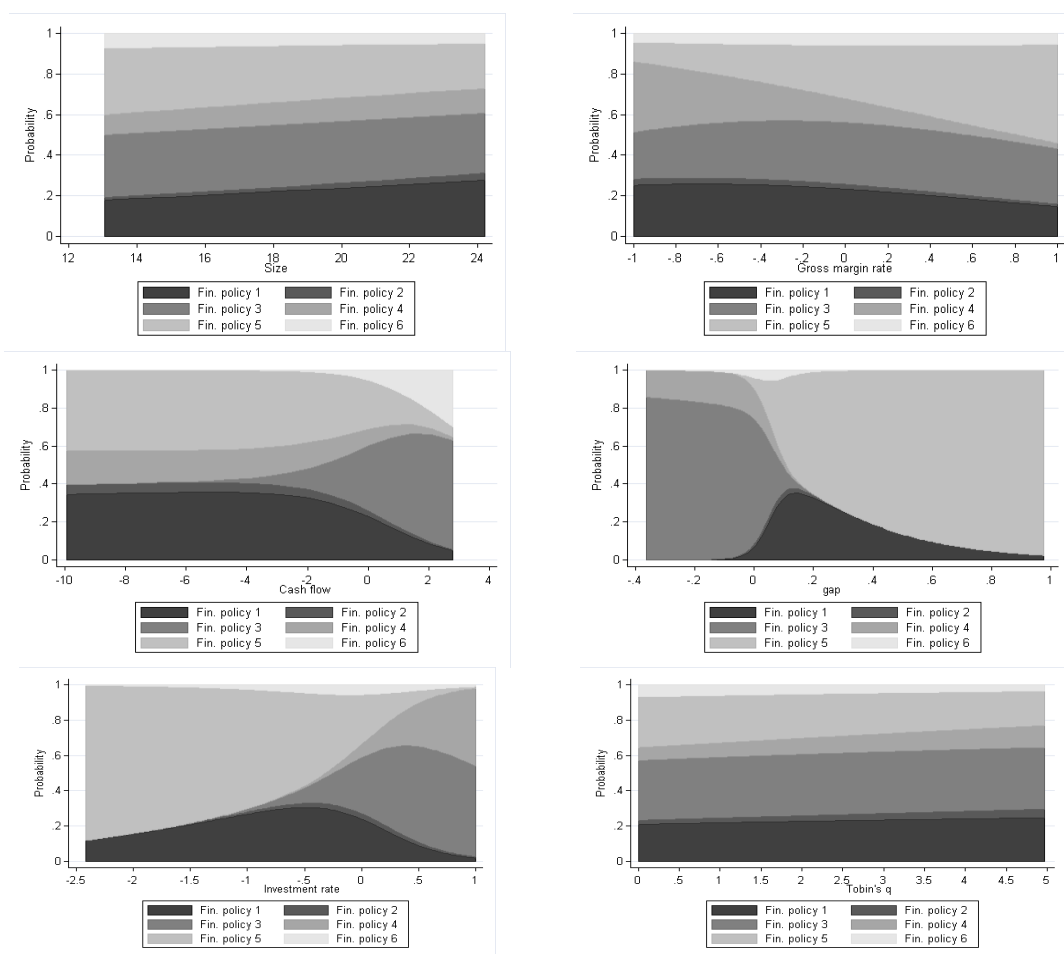


Figure 2 to 7. Predicted probabilities

Table 1. Variables' definitions

Variable	Definition	Osiris and Datastream items
Size (SIZE)	$\ln(\text{Total assets})$	$\ln(\text{OS\_13077})$
Gross margin rate (MARG)	$\frac{\text{EBIT on Total operating revenue}}{\text{Total operating revenue}}$	OS_13024 OS_13004
Cash flow on total assets (CASH)	$\frac{\text{Net income} + \text{Amortization and depreciation}}{\text{Total assets}}$	$\frac{\text{OS\_}(13045 + 13019 + 13020)}{\text{OS\_13077}}$
Leverage ratio	$\frac{\text{Long term debt bearing interest}}{\text{Total assets}}$	OS_14046 OS_13077
Gap between actual and target leverage ratio (GAP)	DEBT – Median indebtedness rate for the year and sector	
Investment rate (INV)	$\frac{\text{Capital expenditures}}{\text{Total assets}}$	OS_05003 OS_13077
Tobin's q (TOB)	$\frac{\text{Market capitalization}}{\text{Total assets}}$	DS_MV OS_13077
Facial interest rate (INT)	$\frac{\text{Interest expenses}}{\text{Long term debt bearing interest}}$	OS_13026 OS_14046
Dividend yield (DIV)	$\frac{\text{Dividend}}{\text{Share price}}$	DS_DIV DS_MV
Facial cost of each financial policy (COST)	Financial policy 1 (NO CHG) Financial policy 2 (SHR ISS) Financial policy 3 (DEBT ISS) Financial policy 4 (SHRDEBT ISS) Financial policy 5 (DEBT REDUC) Financial policy 6 (SHR BB)	0 DIV INT DIV+INT - INT - DIV



**Table 2.** Financial policies by year and country

Financial policy	NO_CHG	SHR_ISS	DEBT_ISS	SHRDEBT_ISS	DEBT_REDUCE	SHR_BB	Total
Germany	275	21	695	137	565	19	1,712
France	262	35	528	142	546	18	1,531
G.-B.	779	90	1,735	476	1,446	132	4,658
U.S.	2,795	414	4,051	1,674	3,661	859	13,454
1991	266	23	377	90	382	76	1,214
1992	252	29	397	118	365	36	1,197
1993	265	42	408	129	395	33	1,272
1994	297	43	404	192	386	28	1,350
1995	328	50	513	216	403	57	1,567
1996	314	41	584	194	432	49	1,614
1997	319	35	589	236	442	57	1,678
1998	277	57	670	288	498	69	1,859
1999	419	63	753	268	541	137	2,181
2000	417	62	773	268	584	167	2,271
2001	464	64	769	266	741	193	2,497
2002	493	51	772	164	1,049	126	2,655
Total	4,111	560	7,009	2,429	6,218	1,028	21,355

Notes: Data come from Osiris and Datastream. Filters are detailed in the text. NO\_CHG: The financial policy implemented by the firm at year  $n$  does not change the capital structure of the firm. SHR\_ISS: The financial policy consists in issuing new shares without changes in the firms leverage ratio. DEBT\_ISS: The leverage ratio of the firm increases, while the firm doesn't issue shares. SHRDEBT\_ISS: The leverage ratio and the number of outstanding shares are increased. DEBT\_REDUCE: The firm reduces its leverage ratio and doesn't change its number of outstanding shares. SHR\_BB: The firm buys back its shares without changing its leverage ratio.

**Table 3.** Descriptive statistics (median values)

	All panel	Germany	France	Great-Britain	United States
Employees	1,215	1,738	3,210	1,197	1,000
Net margin rate	4.7%	3.2%	4.7%	5.7%	4.6%
Leverage ratio	29.5%	19.7%	42.6%	21.1%	32%
Facial interest rate	3.0%	2.7%	2.6%	2.6%	3.3%
SIZE	18.79	18.98	19.65	18.6	19.0
MARG	5.9%	4.7%	7.0%	7.1%	5.5%
CASH	7.3%	8.1%	7.9%	8.9%	6.6%
GAP	4.9%	1.5%	- 1.1%	3.8%	3.1%
INV	6.4%	6.2%	6.8%	5.6%	6.6%
TOB	1.4	1.1	1.1	1.5	1.4

Notes: Data come from Osiris and Datastream. Filters are detailed in the text.

**Table 4.** Multinomial logit – Marginal effects

Financial policy	NO_CHG	SHR_ISS	DEBT_ISS	SHRDEBT_ISS	DEBT_REDUCE	SHR_BB
Variable	Coefficient (Std error)					
SIZE	.087*** (.014)	.073*** (.025)	.062 (.126)	.055** (.021)	-.053*** (.010)	-.059** (.026)
MARG	.023*** (.005)	-.032*** (.010)	.005* (.003)	-.071*** (.006)	.029*** (.003)	-.004 (.010)
CASH	-.014* (.008)	-.003 (.003)	.013*** (.005)	-.004 (.003)	-.083*** (.022)	.024** (.012)
GAP	.015*** (.002)	-.007* (.003)	-.020*** (.002)	-.049*** (.003)	.032*** (.008)	.007* (.003)
INV	-.025*** (.003)	.013** (.007)	.080*** (.004)	.123*** (.006)	-.058*** (.003)	-.025** (.011)
TOB	.052 (.060)	.223*** (.056)	.131 (.017)	.242*** (.027)	-.137*** (.014)	-.109*** (.039)
Log likelihood	- 25,466.250					
Pseudo-R <sup>2</sup>	.221					
Veall and Zimmerman R <sup>2</sup>	.535					
Count-R <sup>2</sup>	.56					
Nb. Obs	21,355					

Notes: \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Data come from Osiris and Datastream. Dummies for countries, years and sectors are not reported. Marginal effects computed at the median of each independent variable. Hausman tests don't reject (at 5%) the IAA hypothesis for all alternatives.

**Table 5.** Nested logit – Regression results

Variable	Coefficient	(Std. Err.)
Alternative		
COST	-.114***	(0.036)
Nest		
INC_SIZE	.014**	(0.007)
DEC_SIZE	-.074***	(0.013)
INC_MARG	-.544***	(0.158)
DEC_MARG	.731***	(0.162)
INC_CASH	-.035	(0.086)
DEC_CASH	-.032	(0.086)
INC_GAP	-.323***	(0.105)
DEC_GAP	1.293***	(0.113)
INC_INV	2.779***	(0.088)
DEC_INV	-.585***	(0.073)
INC_TOB	.0815***	(0.017)
DEC_TOB	-.032*	(0.018)
Inclusive value parameters		
INC_	.742***	(0.225)
NO_CHANGE	1	(n.s.)
DEC_	.498***	(0.096)
Log likelihood	- 32,185.144	
Count-R <sup>2</sup>	.64	
LR-test against the constant-only model	$\chi^2$ (17) = 10,672.18	
LR-test of homoscedasticity	$\chi^2$ (2) = 38.07	
Nb. obs.	125,646	

Notes: \*\*\*, \*\* and \* indicate significance at the 1%, 5% and 10% level respectively. Data come from Osiris and Datastream. Dummies for countries, years and sectors are not reported.



OWNERSHIP STRUCTURE AND CAPITAL STRUCTURE: EVIDENCE  
FROM THE JORDANIAN CAPITAL MARKET (1995-2003)

*Ghassan Omet\**

**Abstract**

The capital structure choice has generated a lot of interest in the corporate finance literature. This interest is due to several reasons including the fact that the mix of funds (leverage ratio) affects the cost and availability of capital and thus, firms' investment decisions. To date, much of the empirical research has been applied on companies listed on advanced stock markets. This literature considered a variety of factors such as company size, profitability, asset tangibility, firm growth prospects and ownership structure as possible determinants of the capital structure choice. This paper examines the finances of Jordanian listed companies and the impact of their ownership structure on the capital structure choice. Based on a panel data methodology (1995-2003), the results indicate that while Jordanian companies are not highly leveraged, their ownership structure does have a significant impact on capital structure, and that much of the main-stream determinants of capital structure are applicable to the Jordanian scene.

**Keywords:** Jordanian capital market, ownership structure, capital structure, panel data.

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**1. Introduction**

It is widely recognized that the emergence of a dynamic private business sector is a critical ingredient in the process of economic growth and development. Similarly, the behaviour of corporations in the generation and allocation of scarce resources is of vital importance. In this respect, it is useful to understand and examine the issue of "corporate governance". Indeed, the issue of corporate governance has attracted some unparalleled interest in the literature. For example, the OECD Principles of Corporate Governance, originally adopted by the 30 member countries of the OECD in 1999, have become a reference tool for countries all over the world. Following some extensive reviews, the new and

revised OECD Principles of Corporate Governance were adopted in the Spring of 2004 and "they now reflect a global consensus regarding the critical importance of good corporate governance in contributing to the economic vitality and stability of our economies" (Jesover and Kirkpatrick, 2005).

While corporate governance as a public policy issue stems from the writings of Adam Smith (1776) and Berle and Means (1932), it rekindled a worldwide and growing research interest due to several reasons. These include the questioning of the efficiency of the prevailing governance mechanisms<sup>1</sup>, the debate over the comparative corporate governance structures that

<sup>1</sup> See Jensen (1993) and Porter (1997).

exist in the American, German and Japanese models<sup>2</sup>, the Asian financial crisis, and the recent corporate scandals in the United States (U.S.), the United Kingdom (U.K.), the Netherlands, and other countries.

Good corporate governance consists of a set of mechanisms that assure finance suppliers an adequate return on their investment. Based on this observation, it is natural to specify a set of mechanisms that should govern companies. In other words, should the governance system be market-based (the US and UK) or control-based (Japan, continental Europe and emerging economies)? The market-based model relies on independent corporate boards, dispersed share ownership, transparent information disclosure, active take-over markets and others. The control-based system, on the other hand, emphasizes the values of insider corporate board, concentrated share ownership structure, limited disclosure, reliance on family finance and the banking system. Moreover, we can state that there exist two types of mechanisms that help resolve the potential problems between owners and managers and between controlling shareholders and minority shareholders. The resolution of conflict between owners and managers relies on internal mechanisms such as ownership structure, executive compensation, board of directors, financial disclosure and others. The resolution of conflict between controlling shareholders and minority shareholders relies on external mechanisms such as the external take-over market, legal infrastructure, protection of minority shareholders, product market competition, and others. Based on the above brief discussion, one cannot be surprised from the vast literature on corporate governance. Indeed this literature examined many issues including the relationship between equity returns and some measures of corporate governance, corporate governance and firm value, and the impact of corporate governance on firm performance<sup>3</sup>. In addition to these studies, and the fact that the issue of corporate governance is multifaceted, a number of additional papers examined the relationship between ownership structure and a number of financial decisions including capital structure, corporate performance, equity returns and dividend policy.

The fact that the number of studies that examine the capital choice in developing countries is limited, little is known about the financing activities of these firms. Indeed, as mentioned by Prasad et al. (2001), even the basic facts are by no means agreed upon. However, the empirical evidence points out to one general observation. Using data from a number of developing countries, the seminal studies of Singh and Hamid (1992) and Singh (1995) indicate that, in comparison with firms in OECD countries, firms in developing countries rely on a greater proportion of

equity finance than debt finance. Similarly, this observation is supported by Booth et al. (2001)<sup>4</sup>.

Given the fact that the Jordanian capital market (Amman Securities Exchange) is large<sup>5</sup>, industrial companies' number makes up about half of all listed companies, and that little is known about the ownership structure and capital structure in this market, it is useful to examine the finances of Jordanian listed companies. In more specific terms, the objectives of this paper are two-fold. First, to report some descriptive statistics about the ownership structure and finances of Jordanian listed industrial companies. Second, to examine the impact, if any, of the ownership structure on the capital structure choice of industrial companies which are listed on the Jordanian capital market.

The rest of the paper is organised as follows. Section II provides a brief account of the Jordanian Capital Market. Section III provides a brief review of the determinants of capital structure. Section IV contains a discussion of the data and methodology. Finally, sections V and VI include a presentation and discussion of the results and a summary and conclusions respectively.

## 2. The Jordanian Capital Market: Some Basic Information

Realizing the economic importance of securities markets, the Amman Securities Exchange (ASE) was established in 1978. Since its formation, the ASE has witnessed some consistent growth in various aspects. For example, while the total number of listed companies has increased from 56 (1978) to 161 companies (2003), the ratio of market capitalization to Gross Domestic Product (GDP) has increased from 37 percent to about 110 percent (Table 1). This ratio (110 percent) is indeed large relative to regional stock markets. For example, the 2003 figures indicate that the market capitalization as a proportion of GDP in Saudi Arabia, Egypt, Lebanon, Morocco, Oman, Tunisia, and the United Arab Emirates were equal to about 73 percent, 33 percent, 8 percent, 30 percent, 20 percent, 10 percent and 11 percent respectively.

Relative to the above, the performance of the ASE is less impressive if we consider the secondary market in terms of its ten most actively traded listed shares. Table 1 reveals the fact during the years 2001, 2002 and 2003 the ten most actively traded shares accounted for 65 percent, 66 percent, and 64 percent of the total trading volume respectively. Moreover, the fact that the market value of these companies' shares account for about 75% of the capitalization of all listed companies, we can state that the ASE is a highly concentrated in terms of its market value and trading

<sup>2</sup> See Shleifer and Vishny (1997).

<sup>3</sup> For example, see La Porta et al. (2001), Drobetz et al. (2003), Gompers et al. (2003), Klapper and Love (2003), Black et al. (2004), Durnev and Kim (2004), and Earle et al. (2005).

<sup>4</sup> Love (2005) reported similar conclusions about the finance of Egyptian listed companies.

<sup>5</sup> By the end of 2003, the market capitalization of the market as a proportion of Gross Domestic Product (GDP) was equal to 110 percent.

volume. If the ASE is the largest in the region when proportioned to GDP, how does it compare with the size of the financial intermediaries that exist in Jordan? Based on the Central Bank of Jordan (CBJ) published statistics, we can state that total bank credit as a proportion of GDP increased from 67 percent

(1990) to more than 74 percent (2003). Similarly, total banking assets as a proportion of GDP increased from 148 percent (1990) to 222 percent (2003). In other words, the Jordanian banking system is larger than the ASE (bank-based system).

**Table 1.** The Jordanian Capital Market: Some Basic Information

Year	Market Capitalization as a % of GDP	Trading Volume as a % of Market Capitalization	Trading in Ten Most Active Shares as a % of Market Trading Volume
1978	37%	2%	75%
1980	42%	8%	66%
1984	46%	6%	56%
1988	49%	12%	50%
1992	65%	39%	48%
1996	73%	7%	53%
1998	79%	11%	68%
2000	59%	10%	61%
2001	76%	10%	65%
2002	80%	15%	66%
2003	110%	18%	64%

Source: Various ASM Annual Reports.

### 3. The Determinants of Capital Structure: A Literature Review

Modigliani and Miller's (1958) classic paper provided the motivation for the huge literature concerning the behaviour of corporations' capital structure. The main proposition of this work (Modigliani and Miller, 1958) is that, under a number of assumptions, the value of a company is independent from its financial structure. This work led to the formulation of alternative theories such as the trade-off theory, the pecking order theory and the agency theory<sup>6</sup> and the publication of too numerous empirical papers to review. However, relative to the studies about companies in developed countries, there have been a limited number of empirical studies that used data from developing countries. For example, the capital structure choice of Malaysian, Mauritius, Zimbabwean, Hungarian and Portuguese, Turkish and Chinese companies have been examined by Pandey (2001), Manos and Ah-Hen (2001), Mutenheri and Green (2002), Balla and Mateus (2002), Gonenc (2003) and Huang and Song (2002) respectively. Similarly, in more recent papers the financing of Egyptian and Chinese companies are examined by Love (2005) and Xue and Chen (2005) respectively. In addition, the determinants of debt maturity structure in the Asia Pacific region is examined by Deesomsak et al. (2005)

The fact that the number of studies that examines the capital choice of developing countries is limited, little is known about the financing activities of firms operating in these countries at large. Indeed, as mentioned by Prasad et al. (2001), even the basic facts are by no means agreed upon. However, the empirical

evidence points out to one general observation. Using data from a number of developing countries, the seminal studies of Singh and Hamid (1992) and Singh (1995) indicate that, in comparison with firms in OECD countries, firms in developing countries rely on a greater proportion of equity finance than debt finance. Similarly, this observation is supported by Booth et al. (2001) and Love (2005). Similarly, the capital structure issue in Jordan, Saudi Arabia, Oman, and Kuwait was examined by Omet and Mashharawe (2003). Based on the time period 1996-2001, the results indicate that the Jordanian, Kuwaiti, Omani and Saudi Arabian companies have low leverage ratios and extremely low long term debt in their respective capital structures<sup>7</sup>. Relative to the subject matter of this paper, the empirical literature suggests a number of factors that may influence the financial structure of companies. However, as argued by Titman and Wessels (1988) and Harris and Raviv (1991), the choice of the underlying explanatory variables is fraught with difficulty. This is why different researchers have considered different key variables in their respective studies as possible determinant variables of the capital choice and these include company size, profitability, asset tangibility and firm growth prospects. Larger firms tend to be more diversified and less prone to bankruptcy (Rajan and Zingales, 1995). They are also expected to incur lower costs in issuing debt or equity. Thus, large firms are expected to hold more debt in their capital structures than small firms. In addition, it is argued that smaller

<sup>6</sup> A survey of capital structure theories is published by Harris and Raviv (1991).

<sup>7</sup> For example, the mean annual ratio of long term debt to total assets is equal to 5.4 percent, 8 percent, 12.8 percent and 9 percent in Jordanian, Kuwaiti, Omani and Saudi Arabian non-financial companies respectively. In this study, the issue of ownership structure was not investigated.

firms tend to have less long-term debt because of shareholder – lender conflict (Titman and Wessels, 1988; Michaelas et al. 1999). While most of the empirical evidence reports a positive relationship between company size and leverage (Kester, 1986; Lasfer, 1999; Rajan and Zingales, 1995; Barclay et al., 1995; Booth et al. 2001), some studies reveal a positive relation between size and the debt maturity structure of companies (Michaelas et al. 1999).

Due to the tax deductibility of interest payments, it is argued that highly profitable companies tend to have high levels of debt (Modigliani and Miller, 1963). However, Myers and Majluf (1984) argued that as a result of asymmetric information (pecking order hypothesis), companies prefer internal sources of finance. In other words, more profitable companies tend to have lower debt levels and higher retained earnings. Relative to this theory, Kester, 1986, Titman and Wessels (1988), and Michaelas et al. (1999) find leverage to be negatively related to the level of profitability. The more tangible assets are, the greater the ability of firms to secure debt. Consequently, collateral value (fixed assets to total assets) is found to be a major determinant of the level of debt finance (Bradley et al., 1984; Rajan and Zingales, 1995; Kremp et al., 1999; Frank and Goyal, 2002). However, Chittenden et al. (1996) conclude that the relationship between tangibility and leverage depends on the type of debt. While a positive relationship between tangibility and long term debt is found, a negative relationship between tangibility and short term debt is reported (Brealey and Myers' matching principle, 1996). Myers (1977) argued that due to information asymmetries, companies with high leverage ratios might have the tendency to undertake activities contrary to the interests of debt-holders (under-invest in economically profitable projects). Therefore, it can be argued that companies with growth opportunities (proxied by the ratio of the market value to the book value of total assets) tend to have low leverage ratios. The empirical evidence regarding the relationship between leverage and growth opportunities is, at best, mixed. While Titman and Wessels (1988), Chung (1993) and Barclay et al. (1995) find a negative relationship, Kester (1986) does not find any significant relationship. In addition to the above factors, some researchers included the ownership structure of firms as a possible determinant factor of capital structure. These include Friend and Lang (1988), McConnel and Servaes (1995), Brailsford et al. (2000). The literature concerning the role of block shareholders (those who own a large proportion of a company's shares) strongly suggests that they have an incentive to monitor and influence management to protect their significant investments (Friend and Lang, 1988). In other words, block holders have the incentive and indeed the desire to watch over management and make sure that they behave in accordance with shareholders' interests. This monitoring hypothesis should result in lower agency conflicts between management and shareholders

(Shleifer and Vishny, 1986). Moreover, Bethel et al. (1998) find that the long-term performance of firms improves following the acquisition of a "large" proportion of the shares by active shareholders. Based on this, it can be argued that if "blockholders serve as active monitors and closely monitor the actions of corporate managers, management may not be able to adjust the debt ratio to their own interests as freely if such investors do not exist...In addition, as the share ownership of external blockholders increase, their voting power and influence increase, giving them greater ability to control the actions of managers. As corporate debt acts as an internal control on management it is proposed here that corporate debt ratios are likely to be an increasing function of the level of share ownership of external blockholders" (Brailsford et al. 2000, p.4). In other words, it can be hypothesised that firms with a higher level of blockholders are likely to have a higher debt ratio, *ceteris paribus*.

#### 4. The Data and Methodology

All listed industrial companies are considered for inclusion in our sample of companies. However, depending on the availability of the data, our final sample of companies consists of 39 companies. Although the number of companies is not high, the fact that this sample accounts for about 60 percent of all listed industrial companies, we can argue that our sample should not be considered as a shortcoming of the study since the analysis will be based on the most representative sample possible.

The selection of the variables (dependent and independent) is primarily guided by the results of the previous empirical studies and the availability of data. For example, we use two measures of leverage. The first measure of leverage divides total liabilities by total assets. The second measure divides long-term debt by total assets. Similarly, the (control) explanatory variables that could be collected are measures of company size, profitability, tangibility, and growth prospects.

As a result, the analysis will rely on the following variables.

Leverage (1) = Total liabilities / Total assets.

Leverage (2) = Long-term debt / Total assets.

Size = Natural logarithm of sales.

Profitability = Earnings before interest and tax to book value of total assets.

Tangibility = Book value of fixed assets to total assets

Growth Prospects = Market value of equity to the book value of equity

Ownership Structure = Sum of the proportions of shares held by those who own 5 percent or more of the company's shares.

Based on the theoretical and empirical evidence, we test the following hypotheses:

H<sub>1</sub>: The levels of leverage (1) and leverage (2) are positively related to company size.

H<sub>2</sub>: The levels of leverage (1) and leverage (2) are negatively and or positively related to profitability.

H<sub>3</sub>: The levels of leverage (1) and leverage (2) are positively related to the level of tangibility.

H<sub>4</sub>: The levels of leverage (1) and leverage (2) are negatively related to the level of growth opportunities.

H<sub>5</sub>: The levels of leverage (1) and leverage (2) are positively related to the level of concentration in share ownership.

In other words, we first estimate the following:

$$\text{Leverage}_{i,t} = \alpha + \beta_k X_{k,i,t} + \mu_{i,t} \quad (1)$$

The above panel data has multiple observations  $t = 1 \dots T_i$  of each  $i = 1 \dots n$  observation units where:

$i = 1 \dots n$  is the cross-sectional units in our sample;

$T = 1 \dots T$  is sample period;

$\beta_k$  are the parameters to be estimated;

$k = 1, 2, 3, 4, 5$  denote the independent variables;

$\mu_{i,t}$  is a stochastic error term assumed to have a mean of zero and a constant variance.

**Table 2.** Share Ownership Structure: End of 2003

Company	Proportion of Shares Held	Proportion of Shares Held by Blockholders (who own
1	95.2	14.9
2	99.8	82.1
3	87.7	43.0
4	98.2	63.9
5	94.5	11.3
6	99.4	23.6
7	99.3	52.7
8	77.8	60.5
9	89.3	82.8
10	99.4	88.1
11	79.9	12.5
12	99.3	59.6
13	91.6	19.1
14	95.2	38.3
15	99.2	45.2
16	98.5	40.7
17	96.9	10.0
18	96.6	46.1
19	92.09	23.2
20	72.9	72.1
21	88.4	81.3
22	95.9	14.9
23	96.8	61.5
24	87.8	56.4
25	48.1	63.4
26	34.4	78.8
27	96.3	34.0
28	98.4	17.3
28	98.1	66.7
30	96.5	62.3
31	92.9	35.4
32	96.8	20.9
33	99.0	52.8
34	84.4	55.6
35	99.5	39.3
36	14.1	85.5
37	94.1	11.7
38	92.5	67.5
39	81.7	58.9
Mean	88.68%	47.5%

To estimate the above panel regression model, we use three alternative methods: pooled ordinary least squares, the fixed effects model, and the random effects model. It must be noted that the advantage of using panel data (combining inter-individual differences with intra-individual dynamics) over cross-sectional or time series data lies in the fact that it usually gives a large number of observations, which increases the degrees of freedom and hence, improving the efficiency of the econometric estimates.

Furthermore, the most important advantage of using the panel data approach is that it accounts for

the unobserved heterogeneity among the cross-sectional firms over time in the form of unobserved firm-specific effects. Moreover, as the sample includes multi-year observations, we utilize the correction techniques for unknown heteroskedasticity of White (1980). Finally, the fact that the Jordanian stock exchange does not allow us to include a large number of shares, and the capital structure adjustment process is likely to be too complex, we decided not to estimate a dynamic model.

## 5. The Empirical Results

In Table 2 we report various measures of the share ownership structure of our sample of companies in 2003. Based on these measures, we can make the following observations. First, on average, about 89 percent of the shares are owned by Jordanians (column 2). The rest are owned by Arab nationals (8 percent) and Non-Arab nationals (3 percent). While this observation holds true for previous years, this ownership structure is in sharp contrast to the Jordanian banking sector. In actual fact, Arab and Non-Arab nationals own, on average, about 32 percent and 7 percent of the shares of the banking sector (It is

interesting to note that all Jordanian banks are listed on the ASE). Second, the reported figures reveal that blockholders (those who own 5 percent or more of the shares) own a mean proportion of 48 percent of the shares (column 3). In Table 3 we report some descriptive statistics (annual) about the capital structure and ownership structure of our sample of companies. Similarly, in Table 4 we report some further descriptive statistics about the other variables which are included in the analysis. In addition, Table 5 reports the correlation matrix between all the variables used in the empirical analyses.

**Table 3.** Some Descriptive Statistics: Leverage & Ownership Structure

Year	Mean of Total	Standard	Mean of Long-	Standard	Mean of	Standard
1995	0.380	0.189	0.070	0.125	0.313	0.238
1996	0.350	0.201	0.064	0.118	0.316	0.237
1997	0.361	0.210	0.071	0.124	0.338	0.244
1998	0.348	0.221	0.073	0.129	0.371	0.250
1999	0.322	0.211	0.074	0.131	0.368	0.249
2000	0.314	0.221	0.103	0.142	0.414	0.228
2001	0.311	0.220	0.103	0.145	0.467	0.222
2002	0.299	0.228	0.103	0.154	0.511	0.224
2003	0.312	0.228	0.098	0.151	0.475	0.228

**Table 4.** Descriptive Statistics for Other Variables

This Table provides two measures of leverage. The first (total) is equal total liabilities divided by total assets. The second measure (long) is equal to long term debt divided by total assets. Fixed is the book value of fixed assets to total assets; ROA is earnings before interest and tax to book value of total assets; Sales is the natural logarithm of sales; Own is the sum of the proportions of shares held by those who own 5 percent or more of the company's shares; and Growth (prospects) is measured by dividing the market value of equity by the book value of equity.

	Total	Long	Fixed	ROA	Sales	Own	Growth
Mean	0.333	0.084	0.375	0.077	6.782	0.398	1.270
Median	0.285	0.017	0.338	0.066	6.763	0.391	1.077
Max.	0.921	0.670	0.990	0.350	8.899	0.945	7.529
Min.	0.012	0.000	0.008	-0.273	4.771	0.000	0.057
S. Dev.	0.214	0.135	0.217	0.079	0.817	0.243	0.874
Ske.	1.033	2.078	0.594	0.035	0.160	0.232	2.466
Kurt.	3.484	7.036	2.755	5.146	3.213	2.151	13.727
J-Bera	65.915 (0.000)	490.986 (0.000)	21.577 (0.000)	67.463 (0.000)	2.151 (0.341)	13.666 (0.000)	2038.83 (0.000)
Obser.	351	351	351	351	351	351	351

Based on these Tables, we can make the following comments. First, the first measure of leverage (total liabilities divided by total assets), is relatively low. This ratio (33.3 percent) is much lower than the 58 percent (US), 69 percent (Japan), 73 percent (Germany), or the 54 percent (UK) reported by Rajan and Zingales (1995). In addition, the mean ratio of this measure of leverage has been around the 30 percent as well. In other words, total liabilities as a proportion of total assets has not really changed by much during the time period 1995-2003. Second, long term debt as a proportion of total assets is extremely low (8.4 percent). "Long - term debt (as a share of total debt) has been low across the whole period in all East Asian Countries. Malaysia, Taiwan and Thailand stand out with less than 1/3. Japan and the Philippines have the

highest shares, while the others are about 0.43. In contrast, about  $\frac{3}{4}$  of debt of US corporates is long term, while in Germany the ratio is 0.55" (Claessens et al., 1998, p.11). Similarly, this measure (long-term debt as a proportion of total assets) had a minimum value of 6.4 percent and a maximum value of 10.3 percent (Table 3). Third, the mean ratio of the shares held by block-holders is equal to 39.8 percent and this ratio is much lower than those found in other markets especially the Asian markets. In actual fact, this proportion is even lower than the 47 percent and 43 percent found in Continental Europe and the USA and UK respectively (Thomsen, 2004). Finally, as we observe in Table 5, the correlation matrix shows that the coefficients are not sufficiently large to cause any collinearity problems.



**Table 5.** Correlation Matrix

Total is total liabilities divided by total assets; long is long term debt divided by total assets; Fixed is the book value of fixed assets to total assets; ROA is earnings before interest and tax to book value of total assets; Sales is the natural logarithm of sales; Own is the sum of the proportions of shares held by those who own 5 percent or more of the company's shares; Growth (prospects) is measured by dividing the market value of equity by the book value of equity.

	Total	Long	Fixed	ROA	Sales	Own	Growth
Total	1.000						
Long	0.827	1.000					
Fixed	0.219	0.250	1.000				
ROA	-0.362	-0.309	-0.143	1.000			
Sales	0.656	0.629	-0.001	-0.110	1.000		
Own	-0.012	0.210	0.080	0.053	-0.089	1.000	
Growth	0.153	0.016	-0.116	0.130	0.269	0.090	1.000

The estimation results of our basic model are presented in Table 6. Based on the reported results, we can make a number of observations.

First, the coefficient of tangibility is positive and significant (0.233) in the case of total liabilities divided by total assets. This result is consistent with the view that there are various costs (agency and bankruptcy) associated with the use of debt funds and these costs might be moderated by collateral. However, this issue (tangibility of assets) is less important in the determination of long term debt. In other words, it seems that the presence of collateral is not "helpful" in getting into long-term debt. Second, the variable profitability is not a significant determinant factor of both measures of leverage. This result, it can be argued, does not support Myer's pecking order theory which argues that as a result of asymmetric information, firms prefer to rely on internal sources of finance. In addition, this finding does not support the tax deductibility hypothesis. In other words, based on this evidence, more profitable

companies do not rely on greater levels of debt than less profitable companies. Third, the coefficient of firm size (the logarithm of sales) is positive and statistically significant in both measures of leverage. Moreover, the value of its' coefficient is much larger in the case of total liabilities divided by total assets. Based on this observation, we can argue that while the informational asymmetries tend to be less severe for large firms, and hence these firms find it easier to raise debt finance, this is not case when they consider the issuance of long term debt. Finally, while the variable growth opportunity is not really significant in impacting both measures of leverage, the ownership structure of our sample of companies provides us with some interesting results. These results, which are reported in Table 6, reveal that this variable (ownership structure) has a significant negative impact on our first measure of leverage (total liabilities divided by total assets) and a significant and positive impact on our second measure of leverage (long-term debt divided by total assets).

**Table 6.** Estimation Results: Total Liabilities & Long Term Debt (Random-Effect Model)

$$\text{Leverage}_{it} = \beta_1 + \beta_2 \text{Fixed}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{Sales}_{it} + \beta_5 \text{Own}_{it} + \beta_6 \text{Growth}_{it} + \mu_i + \varepsilon_{it}$$

Leverage is Total liabilities divided by total assets; Fixed is the book value of fixed assets to total assets; ROA is earnings before interest and tax to book value of total assets; Sales is the natural logarithm of sales; Own is the sum of the proportions of shares held by those who own 5 percent or more of the company's shares; Growth (prospects) is measured by dividing the market value of equity by the book value of equity; and Age is equal to the natural logarithm of years since the establishment of the company. Numbers in parentheses appearing below the coefficient are White (1980) heteroskedasticity-constant t-statistics. \*, \*\*, and \*\*\* indicates coefficient is significant at the 1, 5 and 10 percent level respectively.

	Total Liabilities / Total Assets	Long Term Debt / Total Assets
Constant	-0.440 (-3.085*)	-0.326 (-3.450*)
Fixed	0.233 (5.707*)	0.066 (2.401**)
ROA	0.024 (0.254)	-0.014 (-0.222)
Sales	0.107 (5.226*)	0.050 (3.773*)
Own	-0.093 (-2.346**)	0.106 (3.972*)
Growth	0.004 (0.533)	0.004 (0.751)
Adjusted R <sup>2</sup>	0.842	0.816

Based on these results, one can argue that the positive impact of the ownership structure on the second measure of leverage (long-term debt to total assets) might be due to two reasons.

First, to sustain the financing of these companies, large shareholders provide long-term loans (subordinated loans) to their companies. Naturally, this issue needs further detailed examination of the debt structure of these companies. Second, large shareholders might "force" their companies to go into higher levels of long-term debt as an extra source of control over these companies.

Finally, as far as the impact of the ownership structure on our first measure of leverage (total liabilities divided by total assets), we can see that the sign of the coefficient is negative and significant. To provide an explanation to this observation, it must be noted that the mean proportion of fixed assets to total assets in our sample of companies is equal to 37.5 percent. Relative to this ratio, it must also be noted that the ratio of total liabilities to total assets is equal to 33 percent and the ratio of long term debt to total assets is equal to 8 percent. These values lead us to conclude that our sample of companies finance their fixed and long-term assets from short term financing sources. To mitigate the possible negative impact of this observation, we can argue that large shareholders influence management in reducing their dependence on short-term financing sources.

## 6. Summary and Conclusions

While corporate governance as a public policy issue dates back to the writings of Adam Smith (1776) and Berle and Means (1932), recently it has generated a worldwide and growing research interest due to several reasons. These include the questioning of the efficiency of the prevailing governance mechanisms, the debate over the comparative corporate governance structures that exist in the American, German and Japanese models, the Asian financial crisis, and the recent corporate scandals in the United States (U.S.), the United Kingdom (U.K.), the Netherlands, and other countries. Similarly, the corporate capital structure choice has long been an issue of great interest in the corporate finance literature. This interest is due to the fact that the mix of funds (leverage ratio) affects the cost and availability of capital and thus, firms' investment decisions. To date, much of the empirical research has been applied on companies listed on advanced stock markets. This paper has examined empirically the relationship between the capital and ownership structure of industrial firms listed on the Jordanian capital market. The results of the paper reveal that the leverage ratios of listed industrial companies in Jordan are relatively low. Indeed, based on the fact that the ratio of long-term debt to total assets is equal to 8.4 percent only, we can state that reliance on the long-term debt market by Jordanian companies is extremely limited. This observation, it can be argued, is due to the fact that the

bonds market in the country is very limited indeed. In addition, the reported figures reveal that the mean ratio of the shares held by block-holders (those who own 5 percent or more of the shares) is equal to 39.8 percent and this ratio is much lower than those found in other markets especially the Asian. Finally, while the results indicate that much of the main-stream determinants of the capital structure choice are applicable to the Jordanian scene (like asset tangibility and company size), it is found that the ownership structure of companies has a negative impact on one measure of leverage (total liabilities divided by total assets) and a positive impact on another measure of leverage (long-term debt divided by total assets).

It is hoped that the results of this paper will encourage some further work on the listed Jordanian companies. For example, the issue of corporate governance in terms of its various aspects like its impact on corporate performance would be worth examining. In addition, some further work is needed to understand the reasons behind the relatively low leverage ratios that prevail in Jordan. A survey of the Chief Financial Officers of these companies will probably shed some light on this observation.

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РАЗДЕЛ 3  
КОРПОРАТИВНОЕ  
УПРАВЛЕНИЕ В КИТАЕ

SECTION 3  
NATIONAL PRACTICES OF  
CORPORATE GOVERNANCE:  
CHINA



THE MARKET-ORIENTED GOVERNANCE MODEL OF SOES\*: CHINA  
PERSPECTIVE

*Li Weian\**

**Abstract**

In the transition from centralized planned economy to market economy, reallocation of rights between the government and the market leads to the fundamental changes of economic structure, thus causing Paradigm shift from the government-oriented governance pattern in China. Based on survey of 104 public listed companies in China, a descriptive analysis of the market-oriented governance pattern of SOEs is provided. The internal and external governance mechanisms in market-oriented governance model are designed to enhance the reform of modern enterprise institutions in China.

**Keywords:** government-oriented corporate governance , market-oriented corporate governance , Chinese SOEs

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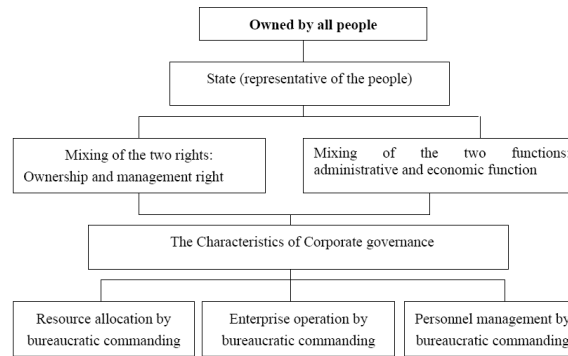
**Introduction**

In the transition from centralized planned economy to market economy, reallocation of rights between the government and the market leads to the fundamental changes of economic structure, thus causing transformation in corporate governance patterns in China. The allocation of control power and the establishment of efficient governance have been drawing much attention in the transitional economies like China. In developed economy there have existed various corporate governance patterns. Each pattern is related to a certain stage of development in a country, economic structure and social environment. So the experience from the developed economy cannot be mechanically applied to a transitional economy. When establishing the corporate governance mechanism

appropriate to the transitional economy, factors such as the particular external environments and the most efficient way of establishment should be taken into consideration. The evolution of the governance of the state enterprises in China sees a gradual shift from government-oriented to market-oriented corporate governance.

**I. Paradigm shift from the government-oriented governance pattern**

At the stage of bureaucratic centralized planned economy, the corporate governance of the state enterprises in China is typically government-oriented. The feature of the governance is government behavior combined with the mixing of government authoritative function and the corporate managerial function.



**Figure 1.** Government-oriented corporate governance of centralized planned economy in China

Source: Li Weian, "Corporate Governance System in Central Planning Economy," *Mita Study of Commerce*, No. 2, Vol. 39, June. 1996. (Japanese)

As is shown in Figure 1, government as representative of the state property enjoys both the ownership and the management rights of the SOEs. The mixing of the two kinds of rights leads the government to play the role of both the administrators of the state and the owner and manager of the state property. Corporate governance tends to be bureaucratic commanding in nature as a result of combining the administrative function of the government with the economic function of an enterprise.

Resource allocation, enterprise operation and personnel management are all bureaucratic commanding – a phenomenon of “the externalization of internal governance and the internalization of external governance”.<sup>1</sup> The consequences are the inefficiency in operation, vacancy of entities shouldering responsibility, the loss of invigoration and high governance costs. As a result the transformation of State Owned Enterprises (SOEs) is in essence the process of abolishing the government-oriented pattern of corporate governance and establishing market-oriented pattern of corporate government.

### **i) Deregulation and profit sharing – transformation characterized by giving enterprises more autonomy**

In the centralized planned economy, as the government’s affiliation, enterprises lacked autonomy and enthusiasm. Transforming the highly centralized bureaucratic pattern of corporate governance and changing the enterprises into independent entities in competitive market, therefore, triggered reforms.

<sup>1</sup> To enterprises, their internal governance is replaced by the governmental behavior, while to the government; its administrative function replaces the enterprises’ economic functions. For details see Li Weian, "Corporate Governance System in Central Planning Economy," *Mita Study of Commerce*, No. 2, Vol. 39, June. 1996. (Japanese)

Since the end of the nineteen seventies, reforms with emphasis on deregulation and installing incentive mechanisms of profit sharing had been piloted in some enterprises, while the structure of the centralized planned economy remained unchanged. In May 1979, eight enterprises were selected from 30 cities including Beijing, Shanghai and Tianjin by six government ministries (the Ministry of Finance, State Committee of Economy, etc.) as the first to carry out the reform of enlarging enterprise autonomy. In 1984, Interim Regulations on Further Broadening the SOE Autonomy was issued by the state to give the SOE more autonomy in ten aspects. Regulations on Changing Management Mechanism of Industrial Enterprises Owned by All People released in July 1992 confirmed 14 autonomy rights to all enterprises.

But the deregulation and incentive mechanism did not invigorate the enterprises, because the enterprises were only given more freedom on the level of management, but with the government-oriented governance pattern untouched. The reform was still within the ideology of centralized planned economy. Efforts were only made on the basis of the original governance in hopes to keep its advantages while removing its disadvantages. Policies of strengthening accounting regulations and incentive mechanism by profit sharing failed to bring enthusiasm to the enterprises as expected. On the contrary, the unbalance and incompatibility of the system led the reform to the dilemma of inadequate autonomy for the enterprises to optimize resources allocation, while too much freedom to practice insider control.

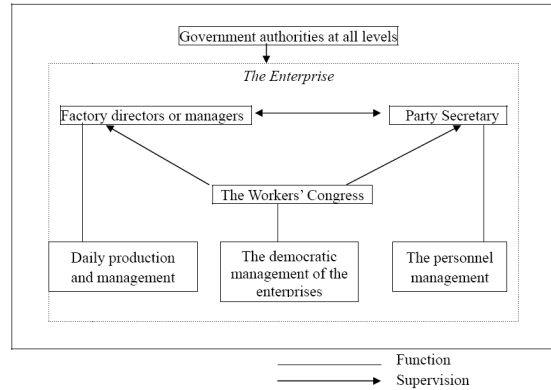
### **ii) The reform of contracting out system characterized by giving the enterprise the residual claim right**

The measure of deregulation and profit sharing did not bring forth the expected results. Hopes were given to a more revitalizing enterprise system. Contracting out system therefore came into being. The end of 1987 had adopted this system in about 80% of state large

and medium-sized enterprises. In 1989 almost all SOEs adopted this system. But again the contracting out system did not achieve the expected results although efforts had been taken from the beginning to make the system practical, such as the practices of mortgaged contract, bidding contract, etc. The contracting out system has inherent flaw although it is regarded as a step forward in invigorating the enterprises and shaping them into independent entities in the market. With the original government-oriented governance pattern basically untouched, new problems came into being. From the view of principal and agent relationships,<sup>2</sup> enterprise behavior in the period of contracting out system was still government-oriented executive as usual. The only difference lied in the degree of government control. In the past the government reviewed many indicators to examine the enterprise operation, while the contracting out system only used the returns on input and output to evaluate the performance of the enterprises. The government kept as usual the operational profits and crafted the long-term development strategies, such as fixed assets investment and production orientation, etc. The government was the decision-maker while managers as executors of these decisions managed the daily production activities. The proprietors of the enterprise (the government) stayed outside of the enterprise. The absence of the proprietors and the deprivation of decision-making power in the enterprises left the managers no enthusiasm and responsibilities to maximize the returns on properties. Failure in crafting right strategies and making timing decisions was the logic consequence. In terms of profit sharing, the state as the party contracting out the enterprise established a relationship of profit sharing with the contractors. The purpose of the practice was to encourage the contractor to fulfill the state target by dividing the residual claim right between the state and the contractor. As a result, the interest of the contractor could be aligned with that of the proprietor (the state). The contracting out system, however, made the definition of property rights ambiguous, because the sharing of the residual claim right had created two owners on the same property. One is the inside owner – the management of the enterprise with the rights of possessing, utilizing and handling the enterprise property; the other is the outside owner – the state with the proclaimed right of ultimate ownership. But the contractors were put in a privileged position. When the privileges could be used to pursue benefits better than the residual profit, the incentives of profit sharing would hardly function. Meanwhile due to the asymmetry of information, adverse selection and moral hazards, the phenomenon of insider control was worsened. It can be concluded that the contracting out system had pushed the problem of insider control into extreme during the transitional period of the economic reform in China. Neither the reform of deregulation

and profit sharing nor that of the contracting out system brought the SOEs to the track of sound development. The problem lied in the absence of effective corporate governance mechanism. But the governance of the period was different from the original one in that the contract agreement between the principal and the agent separated the right of ownership with that of management although it was bureaucratic in nature. Therefore, the corporate governance was still within the limit of government bureaucracy. At the stage the government-oriented governance was based on the state dominated property system and shaped by the bureaucratic contract agreement. The government controlled the enterprises' personnel appointment, assessed their business performance, and evaluated the management achievements. The state as the owner of the enterprises exerted the external governance and kept residual claims right. The structure of the governance was the supervision of the enterprises at all levels of government authorities by performance appraisal and management appointment. The internal governance was a balance among three parties: a. the factory directors or managers in charge of the daily production activities; b. the Party Secretary responsible for the personnel management and the supervision of the enterprise operation; c. the Workers' Congress functioning as the channel for the employees to participate in the democratic management of the enterprises. Three prerequisites are required to make the governance efficient: the government exercises effective supervision over the enterprises; the factory director or manager is a person of high principles and the Party Secretary and the Workers' Congress function effectively. But in reality the prerequisites were not satisfied. First, deregulation and enlarging the enterprises' autonomy had put the government out of the corporate management and the power of control fell in the hands of the managers. The asymmetry of information limited the government's ability to judge whether the performance of the enterprise was achieved by the external factors or by the managers' leadership. The mechanism of incentive and the supervision could not function. This problem could be solved by the complete control of the enterprise by the government. But it would go against the initiative of the reform. Second, the company directors and the managers are economic persons. They would pursue the rationale of maximizing their personal interests. Inadequate supervision would cause adverse selection and moral hazards. Third, the Party Secretary and the factory directors or managers were all insiders of the enterprise with common interests and they would easily act in collusion. Especially when the manager is also the Party Secretary, the function of supervision from the Party was no more than an empty slogan. There were cases in which the Party Secretary exercised effective supervision to the directors and the managers, but often the supervision brought about high bureaucratic cost because of the communication problems and personal conflicts in the enterprises.

<sup>2</sup> Wujinglian, *Modern Corporation and Corporate Transformation*, Tianjin People's Press, 1994.(Chinese)



**Figure 2.** Transitional government-oriented governance pattern

Source: Hirata and Li Weian, "Corporate Governance in Transitional China," *Zeimukeirikyokai*, Oct. 1997. (Japanese)

Furthermore, it was even more difficult for the Workers' Congress to exercise supervision because the employees depended upon the management for their salaries, welfare and promotions. It can be concluded that the defects in the bureaucratic governance are endogenous and the result of the property ownership system. Efforts should be first of all directed to change the system and then the market-oriented governance for SOEs could be constructed.

## II. A descriptive analysis of the market-oriented governance pattern of SOEs

The bureaucratic governance is the consequence of the government-dominated system of property ownership. The defects of the governance pattern are inherent in the ownership system. Therefore the transformation should be first of all carried out in the ownership system to prepare the necessary conditions for the new governance. Establishing share-holding system in some selected enterprises triggered the experiment.

Up till now the establishment of modern corporate system (MCS) has been regarded as the most important step in the transformation of the state-owned large and medium-sized enterprises. One of the procedures is to set up market-oriented corporate governance pattern with the purpose of aligning the interest of all parties. Compared with other forms of companies, the public listed companies (PLCs) in China have set up relatively standardized market-oriented corporate governance. So the paper will only focus on the PLC in China to analyze the corporate governance problems and its improvement.

### i) Internal governance mechanism

As the characteristics of corporate transformation in China, MCS is mainly piloted in PLCs. But because of the imperfection of the commercial law and the immaturity of stock market, the supervision of the companies is of distance supervision and control similar to that in the civil law system. The internal

governance is in the form of regulations and rules, which are specified in Company Law. The law stipulates the allocation of power among the four parties, i.e., the shareholders' general meeting, the board of directors, the board of supervisors and the management. The shareholders' general meeting holds the supreme power in the governance; the board of directors has the power of decision-making; the board of supervisors supervises the management and managers are in charge of business of operation. The system aims at creating a balance and control mechanism in power allocation. But two problems arise in practice. First, as one of the characteristics of PLCs in China, the state and the enterprises are usually in the majority stockholding position. This has led to the power unification of the shareholders' general meeting, board of directors and the management. Thus the separation of powers cannot be realized. Second, the power system cannot act efficiently and effectively in decision-making because of the figurehead shareholders' general meeting, the overpowered board of directors and the weak board of supervisors. To illustrate the problems, the following is an investigation of PLCs in China.<sup>3</sup>

### Basic corporate governance system

The investigation of 104 PLCs shows that the majority (75.42% in Table 1) has adopted the dual system of CEO and chairman, while 14.41% take the system of the Party Committee responsibility or CEO responsibility under the leadership of the Party

<sup>3</sup> Data come from *Report on balance and control mechanism of SOEs in China* (project director: Li Weian) sponsored by the State Committee of Economics and Trade and the International Business School of Nankai Univ. The investigation adopts the method of random sampling. A total of 300 companies were sampled from the 745 PLCs in China in 1997. Questionnaires were sent to be filled out by the executives. The investigation lasted for 5 months and 104 valid questionnaires were collected with the proportion of 34.67% and about 20,000 pieces of primary data were obtained, which was in accordance with requirements of questionnaire investigation.

Committee. It can be assumed that the CEO responsibility under the leadership of the board of directors has been the basic governance pattern of PLCs. The power is oriented more to the CEOs or the board of directors in about 24.58% of the PLCs.

**The most important problem in corporate governance**

To the question of “the most important problem in corporate governance”, 67.26% of the PLCs

responded as the effective involvement of shareholders’ general meeting, directors, and managers in decision-making” while 7.08% said “the intervention from the board of directors and the lack of independent decision-making power for the managers.” So it seems that what is needed for most PLCs is to base the market oriented corporate governance on the scientific mechanism of balance and control of powers.

**Table 1.** The corporate governance pattern of listed PLCs (%)

Question	Proportion
CEO responsibility under the leadership of the board of directors	75.42
The Party Committee responsibility with the board of directors in the role of decision-making and daily management.	11.86
CEO responsibility under the supervision of the board of supervisors.	10.17
CEO responsibility under the leadership of the Party Committee.	2.55

Note: All the companies that have given definite answers are taken as a whole and the proportion each item accounts for is calculated.

**Table 2.** The most important problem in corporate governance (%)

Question	Proportion
Intervention from the board of directors and lack of independent decision-making power for the managers	7.08
Effective supervision and control of the management by the board of directors	23.01
Effective involvement of shareholders’ general meeting, directors, and managers in decision-making.	67.26
Others	2.65

**The person forwarding the proposals when making decisions**

To put forward a proposal is the first step in making a decision. According to the investigation, 79.21% of

the companies gave this right of “calling for the meeting of directors” to the directors and the managers.

**Table 3.** Who calls for the meeting of directors (%)?

Question	Proportion
The directors or managers	79.21
Others	20.79

To call for the board meeting, the directors (including senior managers who are also directors) usually put forward the proposal to the chairman of the board (accounting for 90.56% of the PLCs). A small proportion of the directors put the proposal to a special committee in the board or in other forms. Senior managers who are not on the board of directors usually raise the proposal to the chairman of the board (accounting for 57.14% or to the CEO (accounting for 34.45%) . The agenda of the board meeting is in three aspects: strategy crafting (accounting for 40.35%); company operation assessing (33.77%) and new

appointment, achievement evaluating and management monitoring (24.13%) (Table 4), which is similar to functions of the board in the developed countries (comparing to the corporate governance in UK and USA). But the proposals raised by the directors from government authorities are different from those by the directors representing employees. The former usually covers the strategies of business operation (accounting for 46.67%), the appointment of the senior management (20%), the fulfillment of state targets (20%), the employees’ salaries and welfare (3.33%).



**Table 4.** Agenda of the board meetings (%)

Question	Proportion
Crafting strategies	40.35
The companies operation assessing	33.77
New appointment, achievement evaluating and management monitoring	24.13
Others	1.75

The latter concentrates more on the daily management decisions (38.1%), important management strategies (28.57%), salaries and welfare (23.81%), new appointment (9.52%) (Table 5). The different viewpoints among the directors indicate that

directors from different sources focus their attentions on different aspect of company management and the introduction of employee directors will improve the decision-making mechanism.

**Table 5.** Differences in the proposals forwarded by different directors (%)

Question	Proportion	
The appointed directors from government authorities	Crafting strategies	46.67
	Appointment of the senior management	20
	Fulfillment of the state targets	20
	Employees' salaries and welfare	3.33
	others	
The employee directors	Daily management	28.57
	Crafting strategies	38.1
	Employees' salaries and welfare	23.81
	Appointment of the senior management	9.52
	others	

**The procedure of negotiations**

Negotiation is the process of discussing and bargaining among all parties concerned. So the role played by the negotiators and the balance of powers directly influences the result of the negotiation. The topic can be investigated from the following aspects:

**Whether CEO is also the chairman of the board of directors**

It is not unusual in China that CEO is also the chairman of the board of directors. But the trend is decreasing in PLCs. The investigation shows that only 28.57% of the companies have the concurrent holding of the two offices while up to 71.43% of PLCs do not allow this (see Table 6).

**Table 6.** The proportion of the concurrent holding of the offices of the CEO and the chairman in PLCs (%)

Question	Proportion
Concurrent holding	28.57
Non-concurrent holding	71.43

**The presence of non-executive directors and the nomination procedures**

The presence of non-executive directors and the nomination procedures are important indicators of corporate supervising mechanism. In China the role of non-executive directors is not functioning well. Many companies do not have non-executive directors. As indicated by the investigation, companies with non-executive directors account for 50.52%, just a little over one half, while 49.48% of the companies do not have any non-executive directors. As to the nomination procedure, non-executive directors are nominated in 50% of the PLCs by a special committee in the board of directors and then appointed by the general meeting of the shareholders. In 28% of the

companies the non-executive directors are nominated and appointed by the general meeting of the shareholders. So the nomination procedure is on the approach to standardization.

**The presence of employee directors and directors appointed by the government authority at higher levels**

Most PLCs in China, similar to the cases of the SOEs, are usually under the control of the related government authorities. According to the questionnaire, about 52.04% of them are under the control of related authorities and 47.96% of them are not. But it is not often for the authorities to send non-executive directors to the board.

**Table 7.** Non-executive directors and the nomination procedure (%)

Question		Proportion
Are there non- executive directors?	Yes	50.52
	No	49.48
The nomination procedure	Nominated by a special committee in the board of directors and then appointed by the general meeting of the shareholders.	50
	Nominated and appointed by the general meeting of the shareholders	28
	Nominated and appointed by the chairman of the board of directors	8
	Nominated by the government authority at higher levels	14

Table 8 shows that only 20.39% of the related authorities have nominated non-executive directors, which is inconsistent with the proportion of the companies under their supervision (52.04%). It shows that nominating directors to the board is not the only way the authorities participating in the corporate governance. But the vacancy of the proprietor has encouraged to a certain degree the insider control.

About 22.55% of the companies have employee directors, while 77.45% of them do not (Table 9), which shows that the employees' function in decision-making has not been paid much attention to and the decision-making mechanism of the board is yet to be improved.

**Table 8.** Is the company under related government authority (%)?

Question	Proportion	
Is the company under related government authority?	Yes	52.04
	No	47.96

**Table 9.** The proportion of employee directors and directors nominated by the related government authorities (%)

Question	Proportion	
Are there directors nominated by the related government authority?	Yes	20.39
	No	79.61
Are there employee directors?	Yes	22.55
	No	77.45

### Implementation of the negotiation result and its monitoring

The implementation of the negotiation and its monitoring can be reviewed from the following points:

Whether directors have the right to inquire the implementation of the strategies at any time and how it is conducted. Revealed by questionnaire, the directors at 86.67% of the companies are able to inquire the implementation of the strategies at any time. The directors in 44.32% of the companies can ask for the information on business operation at any time and in 23.86% of the companies, the directors can visit the site and inquire the staff at any time. In 17.61% of the companies, the directors are able to call for meetings of the board and inquire the managers on a business operation. In most cases the directors have access to the first-hand information. Only in 14.21% of the companies the directors are only able to get the information from outside auditors (such as accounting firms) (see Table 10). Two problems may exist here: the subjectivity of executive directors in handling the information and the limitation of executive director in handling the information. So as a way of solving the

problems the independence of non-executive directors should be reinforced. Introducing professional non-executive directors such as experts and scholars from outside can enhance the monitoring power the board.

### Whether the company has an independent auditing committee and for whom is it responsible

The auditing committee is in charge of examining and supervising the enterprise's operation and management. The questionnaire shows that 73.79% of the companies have them as independent branches. Among these branches, 42.53% are responsible for the board of the directors, 26.44% for the general manager, 25.29% for the board of supervisors and 5.74% of them for the Party Committee (see Table 11). As in most companies the auditing committees are responsible for the board of directors, it is important to reinforce the role of the board of directors, especially the boards' independence and objectivity in supervision. The cases in which the auditing committees are responsible for the Party committee should be considered as abnormal.

**Table 10.** Whether the director has the right to inquire into the implementation of the decisions and the way it is conducted? (%)

Question		Proportion
Does the director have the right to inquire into the implementation of the decisions?	Yes	86.67
	No	13.33
How is it conducted?	The director can forward a proposal to call for a meeting of the directors and inquire the managers on a specific business.	17.61
	The directors can ask for the information on the business operation at any time.	44.32
	The directors can visit the site and inquire the staff at any time.	23.86
	The directors are allowed to get the information from outside auditing offices (or the accounting firms).	14.21

**Table 11.** Whether the company has an independent auditing committee and for whom it is responsible (%)

Question		Proportion
Does the company have an independent auditing committee?	Yes	73.79
	No	26.21
For whom is it responsible?	Board of directors	42.53
	General manager	26.44
	Board of supervisors	25.29
	Party Committee	5.74

**(3) The channel through which the board of supervisors gets information**

According to the questionnaire, the board of supervisors gets information from different sources. About 31.6% the board of supervisors obtains information by attending the meeting of the directors, 26.06% of them by reading reports from the board of directors, 24.1% of them by inquiring the directors

and the managing staff and 31.6% of them by collecting information on the site (see table 12). In consideration of its role of monitoring the implementation of the strategies, the first-hand information that the board of supervisors has access to is rather low in proportion. The supervision of the board is generally reactive instead of proactive.

**Table 12.** The channels through which the board of supervisors gets information (%)

Question	Proportion
Attending the meeting of the directors	31.6
Reading reports from the board of directors	26.06
Inquiring the directors and the managing staff	24.1
Collecting on the site	18.24

**The professional auditors on the board of supervisors and their background**

The questionnaire shows that 53.85% of the companies have professional auditors on the board of supervisors. Among these auditors, 77.59% are from within the companies and 22.41% are from outside (see Table 13). The situation here together with those

mentioned above in (2) and (3) affects the effectiveness of the board. So the power of the board is in need of strengthening. Executive supervisors (like employee supervisors) are needed for the board to access first-hand information and non-executive supervisors should be introduced to enhance its independence.

**Table 13.** The professional auditors on the board of supervisors and their background (%)

Question		Proportion
Are there professional auditors on the board of supervisors?	Yes	53.85
	No	46.15
Their background	Auditors from within	77.59
	Auditors from outside	22.41

## Evaluation of the performance of the board of directors

### (1) Whether the company has the evaluation system to the performance of the directors and what it is ?

Currently 20.19% of the companies have set up this system while among class-A companies (in which shareholding body fully control the company), the figure is 50%. But the majority of the companies investigated (about 79.81%) do not have the systems. Different procedures are taken to evaluate the director's performance. In 38.16% of the companies, the directors are required to report on their work, which is reviewed and evaluated by the board. In

12.72% of the companies the directors should report on their work and then the general meeting of shareholders evaluates the report. In 21.19% of them, the directors are to report to and evaluated by the Workers' Congress. In 27.93% of them, related government authorities examine the directors' reports (see Table 14). The questionnaire indicates that a systematic evaluation of the directors' performance has not been on the agenda of most companies. Even in the companies that have set up this system, it is far from being standardized. The cases in which the directors' reports evaluated by the related higher-level authorities and the Workers' Congress do not match the dominant position of the board of directors in the market-oriented corporate governance.

**Table 14.** The evaluation system to the director's performances and the way it is conducted (%)

Question		Proportion
Does the company have an evaluation system the directors' performance?	Yes	20.19
	No	79.81
The way it is conducted.	The directors are required to report on their work, which will be reviewed and evaluated by the board of directors.	38.16
	The directors will report on their work, which will be evaluated by the general meeting of shareholders.	12.72
	The directors are to report and will be evaluated by the Workers' Congress.	21.19
	The directors will report to and be examined by the related higher-level government authorities.	27.93
	Others	

### (2) The director's term of office

The term of office is an important indicator in regulating the behavior of the directors. The investigation shows that 87.74% of the companies have a fixed term for the directors. But 89.13% of the companies do not have job rotations during the director's term of office, which reduces effectiveness of the system. In addition, most of the companies (about 80%) with job rotations for the directors do not have specified conditions for the practice, while even in the 20% of the companies with the restrictive conditions, they are only applied to the employee directors and professional non-executive directors (see Table 15). It indicates that the PLCs in China are not aware of the importance of the job rotation in the board's function of supervising and decision-making.

The above statistics shows that the internal corporate governance of the PLCs in China is roughly up to the requirement of market-oriented governance, but is far from being standardized. First, in terms of decision-making procedures, senior executives dominate the process of forwarding proposals and leading discussions. The employee directors, the board of supervisors and the related government authorities are functioning as supplements. Members of the party committee and workers' congress take part in the

decision making by becoming directors of the board. Thus the system with the board of directors (senior executives) dominating the decision making is roughly established. It is not unusual in China that CEO is also the chairman of the board of directors. The problems of concurrent holding of the chairmen and CEOs and the introduction of non-executive directors are being standardized in most of the PLCs.

On the other hand, the presence of outside directors, the employee directors and directors appointed by the related government authorities and protection of the interests of the medium and small shareholders are paid more attention in the decision-making process. Setting up special committees to guarantee the function of non-executive directors should be put on the agenda of board of directors.

Second, in terms of strategy implementation and supervision, the system of managers routine reporting and the directors feedback inquiring have been standardized. Although the board of supervisors is able to play the role of supervision, improvement is needed in the board of directors' involvement into the decision-making process in terms of time, information accessibility, incentive mechanism, and proactive and reactive control. Efforts should be taken to guarantee the board's capability in dependent auditing and sufficient funds and remuneration.

**Table 15.** The director's term of office and job rotation practice (%)

Question		Proportion
Do directors have term of office?	Yes	87.74
	No	12.26
Is there job rotation within the term?	Yes	10.87
	No	89.13
Are there specified conditions for job rotation?	Yes	20
	No	80
The conditions to job rotation	Non-executive directors should hold positions in charge of auditing and supervising.	
	Positions in charge of forwarding proposals and remuneration should be held by non-executive directors.	
	The Workers' Congress should approve the change of employee directors.	50
	Establishing special positions to be held only by specialized personnel.	50

Third, great efforts are needed to be made in the evaluation of the directors' performance, the directors' job rotation practice with specified role definition and the training, appointing and examining mechanism in accordance with the enterprises' long-term strategies.

#### ii) Positive analysis of the external governance mechanism

The banks and the stock market are the main actors of external corporate governance in China. The transformation in banking system is on a trend to adopt the distance financing between the banks and enterprises. In July 1997, the issuing of Interim Regulations on the Administration of Lead Banks further stressed the banking function of financial services to the enterprises instead of the supervision and guidance to the enterprises. The classification of the loan assets into five categories by their reimbursability was tried out in 1988 and then widely adopted in 1999. To accompany this classification, the central bank was allowed to open branches across provinces. Measures were taken to consolidate trust companies and credit units, further strengthening the idea of the distance financing. The banks, also SOEs themselves, are going through the transition from the government-oriented governance to the market-oriented governance as well. Similar to transformation experienced by the industrial companies, the banks

have undertaken first of all the consolidation of internal governance and standardization of operational mechanism. The stock exchange market in China is in the pioneering role of piloting modern corporate system in the economic structure reforms. Therefore it can be regarded as the most advanced form of external governance, which will be the focus of our analysis in the latter part of the paper. The aim of corporate governance is to give the shareholders satisfactory returns while taking into consideration the interests of the parties involved. But the positive study shows that even the performances of the PLCs with standardized modern corporate system are far from being satisfactory. The overall performance of the PLCs are not promoted with the increasing number of companies listed on the stock market and the increasing volume of capital assets of the PLCs, which made the sustainable development of the listed companies and the effectiveness of the stock market the hot topics in the economic circle. It can be seen that, although some companies grow robust, many are trapped in operational difficulties and the trend is increasing. The assets quality of the ill-performing companies is deteriorating and making great losses. In addition, the aging of companies – the decline in the overall performances of some old listed companies, has aroused wide attention.

**Table 16.** Performance of the listed companies between 1993 to 1998 in China

Year	Earning per share (¥)	Return on net assets (%)
1993	0.35	14.60
1994	0.32	14.20
1995	0.25	10.80
1996	0.23	9.50
1997	0.235	10.213
1998	0.211	7.801

Source: Guide to the Stock Market, from 1993 to April 1999

**Table 17.** Number of loss-making PLCs between 1995 and 1998

Year	1995	1996	1997	Mid-1998	End of 1998
Number	17	31	40	73	76

Source: Guide to the Stock Market, from 1993 to April 1999.

Table 18 shows that earnings per share and the return on net assets are on the trend of decreasing. The losses made by the newly listed companies are also getting serious, especially in the case of Hongguang Industry, where great losses occurred in the same year of going public. Statistics in Table IV show that the average interval between the time of listing and loss

making is 34.97 months, less than 3 years. About 50% of the companies went into losses in less than 3 years. Considering the over cosmetic accounting manipulations among the newly listed companies, we see the ill-performance of the old listed companies and the fast loss-making of the newly listed companies as, in a sense, the two sides of the same paper.

**Table 18.** Comparison of the mid-term performances of the listed companies between 1995 and 1998

Time of going public	Earnings per share (RMB yuan)	Returns on net assets (%)
Before the end of 1995	0.071	2.97
1996	0.112	4.75
1997	0.141	5.30
1998	0.161	6.10

Source: Liu Lang, "A study of the sustainable development of PLCs," Guide to the stock market, Oct. 1998.

**Table 19.** The loss making companies at the end of 1997 and in mid-1998

Year	Number of loss-making companies	Listed before 1995	Listed before 1996	Listed before 1997
1997	40	31	8	1
Mid-1998	73	53	16	4

Source: Liu Lang, "A study of the sustainable development of listed companies," Guide to the stock market, Oct. 1998.

**Table 20.** The average intervals between the time of going public and making losses

Interval	In 1 year	In 1.5 years	In 2 years	In 2.5 years	In 3 years	In more than 3 years
The number of companies	3	6	9	4	9	31
Proportion (%)	4.838	9.677	14.516	6.451	14.516	50

Source: Mou Xudong, "An Analysis of the restructure of loss-making companies," Guide to the stock market, March 1998.

The overall deteriorating performances of old PLCs and the over cosmetic accounting manipulation of the newly listed companies drew people's attention to the effectiveness of the external governance as well as the internal governance to the companies. The stock market set up rules and regulations on accounting standards and information disclosure to get rid of the practice of profit and information manipulation. With the operational environment becoming transparent, companies, instead of manipulating their profit figures, started to boost their performances by the improvement of management and the external governance. Corporate restructuring is regarded as an effective and efficient way to better the PLCs' performance. As a matter of fact, with the standardization of the stock market, restructuring was the most important strategy to eliminate losses and increase profits in the PLCs in the past three years (1997, 1998 and 1999). Statistics showed that, among the 62 loss-making companies by mid-1997, 32 companies were restructured, accounting for more than 50% of the total. Table 21 indicated the following trends: firstly, the number of loss-making companies increased with the number of the restructuring

companies. Secondly, the longer or the earlier the period of the companies' making losses, the higher the proportion of being restructured. Among the 25 STs (special treated companies), which were confirmed loss making a year ago, 11 companies (40.74% of the total) were restructured.

The restructuring is usually taken in the following three forms:

Restructuring dominated by the government

Restructuring dominated by the holding company or the majority shareholders

Restructuring dominated by external dominant shareholding bodies including the state assets management companies, the parent companies or the majority shareholding companies or the majority shareholders. The first and the second are the usual forms of restructuring and the third type is the trend of increasing. Corporate restructuring through the secondary market is rare in China. The transfer of the state or the corporate shareholding by contract agreement is an important way of restructuring, which is closely related to ownership structure of the stock market in China.

**Table 21.** The restructuring of loss-making PLCs

Loss-making year	1994	1995	1996	mid-1997
Number of companies	2	17	32	36
Number of companies being restructured	2	11	17	15
Rate of restructuring (%)	100	64.7	53.1	41.6

Source: Mou Xudong, "An analysis of the restructuring of loss-making PLCs," Guide to the stock market, March 1998.

**Table 22.** The change of the stock ownership structure of PLCs in China

Year	93	94	95	96	97	98
State shareholding (%)	47.9	43.3	42.2	40.1	31.52	34.25
Legal person's shareholding (%)	23	24	22.7	14.9	30.7	28.34
Shares circulated on the stock market (%)	29.2	32.7	35.1	35.0	38.08	37.41

Source: China Securities Daily, 1994-1999.

The stock market in China exerts its external governance by the way of corporate restructuring based upon the transfer of the state-owned shares or the corporate shares by contract agreement. The basic features of the practice are as follows:

In the mechanism of market-oriented governance, the external governance usually realizes the replacement of unqualified management by merger and acquisition. Following suit, the restructuring of PLCs in China is by the restructuring of the corporate management, which is also used as signals to stimulate the management of other loss-making companies.

At the immature stage of the stock market development, the transfer of state-owned or the corporate shares which are unable to be circulated on the secondary market is an important channel to separate the right of ownership with that of management and set up the operational mechanism for the capital to be managed by the qualified management.

### III. The market-oriented governance model and suggestions

The pilot of the share-holding system in state-owned large and medium-sized enterprises began at the end of 1986 on an overall scale. But due to the insufficient knowledge about the incorporation reforms, the experiment of share-holding system as well as the establishment of modern corporate system was not conducted according to the international standards. Our analysis shows that the PLCs, the models in the system transformation, have many problems yet to be solved.

#### i) Problems in exploring the market-oriented corporate governance mechanism

First, the control of the shareholding system tends to be government oriented. For some companies, the shareholders on the secondary market are not the ones who care for the performance of the enterprise. What they run for is the price premium that they will get when selling the shares. The supreme authority — the general meeting of the shareholders does not enjoy any right in the appointment of the board of directors except for its limited function in deciding the dividend payment scheme. In many companies the board of directors came into being long before the general meeting of the shareholders was called for. The directors often are from the management of the

companies and relevant government authorities. Government authorities usually appoint the chairmen and CEOs. The directors and chairmen selected by the companies can be easily replaced and removed by the local government authorities in some places. The shareholding system is in fact government-oriented, which is against the standard market-oriented governance mechanism.

Second, the external governance is not effective. Government is unable to conduct its monitoring function in an environment of information asymmetry. So the phenomenon of insider control is prevailing.

Third, the mechanism of internal governance is weak. Most shareholding companies lack of internal monitoring mechanisms. Employees have no efficient channels to be involved into the management of the enterprises. So there is no monitoring pressure from the working staff to the management. Supervisors are usually selected among companies' auditors, accountants and administrative staff. They can easily form a conspiracy with the management and have no motivation to supervise.

Additionally, in many companies, CEOs are also the chairmen of the boards, which has weakened the supervision from the board of directors. Although significant steps have been taken on the approach to the market-oriented governance, the present stage of development is far from being satisfactory and complete. Greater efforts are needed to explore more efficient governance pattern and cultivate a market-orientated operational environment to enhance the competitiveness of the enterprises. For the market-oriented governance to be based on the shareholder-dominated system of property right, the following mechanisms have to be guaranteed.

#### The mechanism of corporate property

The material basis of enterprise behavior is the corporate property consisted of assets from the investors, the right of creditors and the intangible assets. Enterprises obtain independent corporate property rights on the basis of the corporate property and become personified independent legal identity. This helps to eliminate direct government intervention in the corporate management so as to increase the efficiency in decision-making and the flexibility to market changes and solve the problem of separating the functions of the government from those of enterprises. Meanwhile, it has paved the path for assessing the performance of enterprises. The investors can make judgment over the managers'

achievement as well. It also helps to motivate the management for long-term development and standardizing operation.

### **The incentive mechanism**

Efficient governance has its in-born incentive mechanism to eliminate moral hazards and align the interest of the owners with that of the managers and the employees. The mechanism alienates any intention or act of irresponsibility or "laziness" which are regarded as incompatible to the common interest.

### **The mechanism of democracy**

The system of efficient democratic management and supervision creates a democratic atmosphere for the management of enterprises. It reduces the conflicts between the management and the employment caused by information asymmetry so as to cut the bureaucratic cost. At the same time the employees will be more motivated to work as team players. The short terms can be avoided to the largest degree and the long-term development is encouraged.

### **The monitoring mechanism to balance the interest of all parties**

The efficient ownership system not only cares for the shareholder's rights and interests but also emphasizes the monitoring of the management by all stakeholders by creating conditions for them to participate in the enterprise supervision. Currently, the government is the only supervisor of the enterprises. But due to insufficient information, the government cannot conduct effective supervision and control, while the involvement of employees into the process of decision-making and supervision is an empty slogan.

Therefore market-oriented governance must assume the following elements:

- with incorporation of enterprises as the prerequisite;
- with the shareholders dominated property system as basis;
- with the core of considering the interests of all parties united by the relationship of shareholding, crediting and other business contracts;
- with the market as guidance;
- with long-term development strategies as the goal..

### **ii) The design of market-oriented governance and suggestions**

The market-oriented governance can be realized in many governance patterns. The most important consideration is not the choice of certain pattern but establishment of a mechanism that will guarantee the process of crafting long-term development strategies, which can be judged from the following two aspects – whether the strategies are in the interest of all parties

concerned and whether they bring about the sustainable development of the enterprises. As the decision-making is in fact a process of negotiation, the governance should include the following:

First, who puts forward proposals?

Second, who implements the decision of the negotiation?

Third, who evaluates the negotiation and the implementation?

Fourth, what is the evaluation procedure?

These details are about the above-mentioned mechanisms of incentives, supervision, control and balance. So the design of market-oriented governance should start by guaranteeing the making of long-term strategies and following the logic of all parties' involvement in the process of governance and decision-making.

### **The design of internal governance**

The building of internal governance should be based upon the many-sided supervision mechanism to realize the joint participation in the decision-making and interaction of all supervising powers. First, the initiative of the employees should be encouraged. Employees' participation in the management benefits long-term strategies and sustainable development of the enterprises, because the employees care most for the job security and dependable endowment scheme. So the important step now is to find an efficient channel to guarantee the employees' participation into the management of the enterprises. The legal system in Germany stipulates the seats for employee representatives on the board of supervisors. Among 100 big companies in Germany, the representatives from the employees and the trade unions accounted for 51.1% on the board of supervisors in 1988.<sup>4</sup> At the same time, the involvement of employee directors is also a key indicator in bettering the governance mechanism. As employee directors come directly from the production line, they know more about the problems in the daily operation and management. Their proposals can be complementary to those of the executive directors and non-executive directors. The introduction of employee directors is related to the legal system. In the countries of civil law system, most have established the system of employee participation in the decision-making on the board of directors. In France, it is stipulated that in companies of more than 50 people, there must be observers from the employees on the board of directors. Although the common law system in USA or UK does require the presence of employee representatives on the board of directors, the powerful Unions in these countries are often in a strong bargaining position to the management of the enterprises. Therefore the participation of employees in the process of decision-making at different levels is the well-accepted

<sup>4</sup> Yin Wenquan, "The Comparison of Corporate Governance in America, Japan and Germany," *Transformation*, March 1994.



practice. So what is needed in China is to standardize the presence and the proportion of employee directors and supervisors on the boards by legislation. The employee directors and supervisors are to be selected at the Workers' Congress. The function of the Workers' Congress can therefore be fully realized in the internal corporate governance.

Second, the control of the enterprises is to be reinforced by introducing non-executive supervisors selected among the professional auditors and accountants outside the companies. As the board of supervisors with members from inside the company is unable to exert efficient supervision over the management, the presence of non-executive supervisors is important to standardize the supervision of companies. The nowadays problems are how to formalize the process of appointing non-executive supervisors with the necessary standing to exert significant influences on the boards. Finally, the independence of non-executive directors is to be strengthened. Different from the board of supervisors that is usually reactive, the influence from the board of directors can be proactive if it contains sufficient number of experts, scholars or experienced entrepreneurs as non-executive directors. Above all, the construction of efficient internal governance mechanism requires the supervision of all controlling power concerned as well as the incentive mechanism to align the interests of all parties involved.

## 2) The design of external governance

The efficiency of external governance comes from the competition for the agency right, the threat of merger and acquisition, the pressure restructuring and liquidation, which are able to exert sufficient influence and incentives to the insiders. Some preconditions are needed for the governance to function. First an efficient capital market is needed for the corporate evaluation and transfer of control right. Meanwhile, the social service system is also needed to be readjusted, such as introducing competitive entrepreneur market and labor market, etc., as supplementary conditions for the external governance.

First of all, the modern entrepreneur market should be established. Entrepreneurs are the human resources for the modern enterprises. Measures have to be taken to change the reality of government authorities appointing the management of enterprises and establish an entrepreneur market with high efficiency and wide coverage. Relevant regulation and rules should be formulated to standardize the behavior of the entrepreneur market. The entrepreneurs are selected competitively on the market. The open and fair competition and market evaluation bridged the supply and demand of the management talents. Intermediary organizations are to be set up in the entrepreneur market for the recommendation of the management talents. At the same time, the evaluation system is also needed to encourage real

entrepreneurship and eliminate the phenomenon of on-the-job corruption.

Second, the banking system should be reformed to create new relationships between the enterprises and the banks. Currently the banks only exert soft monitor on their loans, a practice, which were usually taken advantage of by enterprises. The banking reform can be taken in different ways, such as adopting the system of investment bank following the model of those in Germany and Japan. The point of the reform is to fully assume the banks' supervisory and advisory role in the external governance and to avoid the conspiracy between companies and banks<sup>5</sup>. Due to the fact that the practice of the banks is mostly government-oriented and the capitals are usually loaned out by government orders, the current banking system in China is unable to function in the governance of companies. Reforms are needed to taken in the following two aspects:

Commercialization of the old specialized banks by incorporation to refinance their banking assets by new sources or going public on the stock market;<sup>6</sup>

Opening new commercial banks to cultivate the standardized governance structure, avoiding bad debt problems and loan granting for political considerations by market-oriented practice, breaking the oligopoly of the banking world and exerting pressure on the present banks to better their supervisory function to the enterprises.

Third, the administration of the stock market should be further standardized. Due to the immaturity of trading systems, ambiguity in market regulations, weakness in supervision, the development of the stock market in China is abnormal, overwhelmed by irrational speculations. It cannot exert effective external governance to the PLCs. Strong measures must be taken to bring the stock market back to the right track.

On the basis of the above analysis, the theoretical model of the market-oriented governance can be constructed as what follows (see figure below).

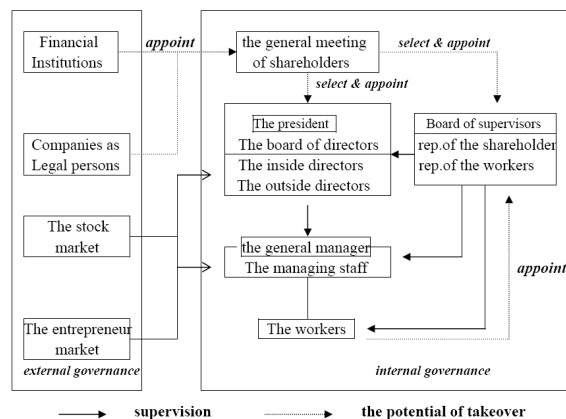
For the internal governance, the board of directors is in the key position. Executive directors are to put forward the proposals and non-executive directors supervise and evaluate the whole process of the decision-making and the strategy implementation. The board of supervisors is important for the supervision and evaluation of the performance of the enterprise. With the introduction of non-executive supervisors and employee supervisors, the function of the supervisory board is reinforced. The management at all levels and the employees of the enterprise are the working force to implement the strategies.

<sup>5</sup> Li Weian, "The function of banks in external governance," *Communication*, Oct. 1996.(Japanese)

<sup>6</sup> See the thesis "Restructuring the relationships between the enterprises and the banks," submitted by Zhou Xiaochuan to the International Conference on *The Next Step of Reforming the Economic Structure in China*, held in Beijing, August 1994, pp.23-25.

As to the external governance, banks conduct their governance of enterprise by their stakes in the enterprises. The corporate stocks construct a consolidated base of structural stability for corporate operation and the sustainable development. The

taking-over pressure from the stock market, the competition on the entrepreneur market and the competition for agency right combined together form an effective external governance mechanism.



**Figure 3.** Market-oriented governance pattern

Source: Li Weian, "Corporate Governance in the Transition to Market Economy in China," Hitotsubashi Forum, No. 5, Vol.117, May 1997. (Japanese)

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# GOVERNMENT-OWNED COMPANIES AND CORPORATE GOVERNANCE IN AUSTRALIA AND CHINA: BEYOND FRAGMENTED GOVERNANCE

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## Abstract

The ownership and control of government owned companies presents a major challenge for the integrity of established corporate law ideas regarding accountability of directors and the independence of government owned companies. Drawing upon experience from China and Australia, the article discusses some of the key corporate governance tensions that have emerged from the corporatisation of state owned assets. The attempt to uncritically apply private sector ideas to the corporatisation of state owned and controlled companies is fraught with difficulties that are discussed in this article. The article also examines attempts to place state owned companies on a sounder conceptual footing through changes to their culture brought about by adopting and embedding guidelines and standards, such as the recent OECD *Guidelines on the Corporate Governance of State-owned Enterprises*.

**Keywords:** ownership, corporate control, government, accountability

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<sup>1</sup> R. Grantham, "The Governance of government owned corporations", (2005) 23 *Company and Securities Law Journal* 181 at 193.

## 1. Introduction

"The rationale of the corporatisation movement was to try and capture the efficiency and accountability attributes of the private sector company...[T]his has clearly not been achieved [in Australia]. Internally, the board of the GOC [government owned company] has been explicitly emasculated, both in its control over senior management and in its autonomy to set strategic direction. Externally, few of the [private sector] market-based controls have application to the GOC."

*Professor Ross Grantham*<sup>1</sup>

"In their dash to efficiency under a nascent market-oriented legal and regulatory environment with unclear or poorly defined property rights, China's SOEs face a formidable hurdle to introduce (or in some cases, strengthen) the four basic elements of the modern corporation<sup>2</sup>...*The reality is that in China the corporate form is an innovation for the State and an imposition for most enterprises, not a natural evolution. The result is that the fundamental attributes*

*of the modern corporate form are not yet well-established, though early steps have been made in the right direction.*"

*The World Bank*<sup>3</sup>

For a variety of reasons, some of which have been largely economic<sup>4</sup>, the sovereign state has been under pressure to withdraw wholly or in part from many social and economic activities; this is especially so where there is a perception that entities with private sector features might be better able to deliver activities in a more cost effective way.<sup>5</sup> Some observers have taken the ideological view that the role of government should be "to steer and not to row", seeing an increasingly strong movement in recent decades to minimize the involvement of government in the governance of various entities.<sup>6</sup> This has seen government responses ranging from the mere "commercialisation" of the internal activities of government agencies to their disposal through "privatisation". These responses have often involved

<sup>1</sup> R. Grantham, "The Governance of government owned corporations", (2005) 23 *Company and Securities Law Journal* 181 at 193.

<sup>2</sup> These are seen to be: (i) a company's separate legal identity from its owners; (ii) limited liability for the owners of shares in the company (iii) a centralised role for corporate managers and its board of directors; and (iv) the transferability of ownership rights in the company.

<sup>3</sup> World Bank, *China's Management of Enterprise Assets: The State as Shareholder*, Washington DC, 1997.

<sup>4</sup> JR O'Connor, *The Fiscal Crisis of the State*, New York, St Martins Press, 1973.

<sup>5</sup> Some has seen evidence of a crisis in sovereignty or at least a transformation in the role of the state. See generally, N Walker (Ed), *Sovereignty in Transition*, Oxford, Hart Publishing, 2003

<sup>6</sup> D Osborne and T Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, Reading, Mass. : Addison-Wesley Pub. Co., 1992.

the intermediate step of “corporatization”.<sup>7</sup> As Bottomley has noted, there is “a clear trend towards use of the company structure combined with a general move towards devolution of responsibility closer to operating levels.”<sup>8</sup> Corporatization of public entities may take a diverse range of forms,<sup>9</sup> and the extent to which private sector models have been followed, varies greatly between them. Sometimes corporatization is seen as an end in itself for public sector entities (as is often the case in Australia), whilst in other cases it is seen as a step on the way to full privatisation (as has been the case in the UK and NZ).<sup>10</sup> China presents a special case as corporatization of parts of large state owned enterprises has been used to try to attract outside investment in corporatized listed companies and to break out of the cage of the planned economy model, without necessarily moving away from strong state control as the dominant shareholder in corporatized entities. Corporatization reforms have often been undertaken with a view to achieving greater efficiencies and creating more effective incentives for managers.<sup>11</sup> In Australia, it has often been claimed that the government owned corporation has advantages of greater “independence, accountability and efficiency”.<sup>12</sup> As Donald C Clarke has noted while discussing Chinese corporate governance, “[w]hile corporatization has many purposes, the chief one is the promotion of higher efficiency through better management.”<sup>13</sup>

However, for political reasons, there are often limits on the degree to which efficiency is allowed to become the ultimate goal of the corporatization of state owned entities, especially where these entities are seen to hold some strategic importance for the state. Corporate governance arrangements are always a reflection of political factors.<sup>14</sup> The current Australian debate regarding the sale of Australia’s

dominant telephone carrier, Telstra, well illustrates this on-going tension; the element of agrarian socialism evident in the debate over the use of funds realised from the sale of Telstra for the provision of “uneconomic” services in the “bush” (or in rural areas) might well be compared with similar arguments in China regarding the continuing communitarian obligations of corporatized state owned entities, often to their parent companies.<sup>15</sup>

The corporatization movement has often been driven by a perception that the public sector has failed in some way or even that the state has been deficient in its capacity to deliver certain types of activities, or at least to deliver them as efficiently as some might expect.<sup>16</sup> Whilst the limits of the state to respond to changing circumstances are more readily criticized in countries such as Australia, this has not always been the case in China. The existence of a one party state in China has meant that reforms of state owned enterprises and economic laws have had to be undertaken very carefully so as not to criticise the Party or the State itself. For example, at one stage it was often said that it was absurd to seek to introduce insolvency or bankruptcy laws to deal with loss making state owned enterprises as this was tantamount to suggesting that their owner, the state, was itself bankrupt. In any event, through some clever championing of change by paramount leader Deng Xiao Ping, China was able to move to adopting market principles, the corporate form and stock markets without adopting capitalism itself.<sup>17</sup>

In August 2004, the Commonwealth Government released the so-called Uhrig Report, *Review of the Governance of Statutory Authorities and Office Holders*.<sup>18</sup> Whilst pointing to some difficulties with the use of private sector models in public sector contexts, Uhrig continued to believe in the greater accountability and efficacy of these private sector models; however, this faith has not gone without some

<sup>7</sup> See generally, B Collier and S Pitkin (Eds), *Corporatisation and Privatisation in Australia*, Sydney, CCH Australia Limited, 1999.

<sup>8</sup> S Bottomley, “Regulating Government-Owned Corporations: A Review of the Issues”, (1994) 53 *AJPA* 521 at 52523. Bottomley has pointed out (at 524) that corporate lawyers have generally ignored the distinction between public regulation and private enterprise.

<sup>9</sup> S Bottomley, *supra* at 524.

<sup>10</sup> R Grantham, “The Governance of government owned corporations”, (2005) 23 *C&SLJ* 181 at 182.

<sup>11</sup> See generally, *Report 336, Public Business in the Public Interest: An Inquiry into Commercialisation in the Commonwealth Public Sector*, Joint Committee of Public Accounts, The Parliament of the Commonwealth of Australia, Canberra, AGPS, 1995 at p 4.

<sup>12</sup> S Bottomley, “Regulating Government-Owned Corporations...” *supra* at 524. For a more detailed discussion of the accountability problems of government business enterprises, see S Bottomley, “Government Business Enterprises and Public Accountability through Parliament”, Research Paper 18, 1999-2000, Parliament of Australia at <http://www.aph.gov.au/library/pubs.rp/1999-2000/2000rp18.htm>

<sup>13</sup> DC Clarke, “Corporate governance in China: An overview”, (2003) 14 *China Economic Review* 494 at 497.

<sup>14</sup> See further, MJ Roe, *Political Determinants of Corporate Governance: Political Context, Corporate Impact*, New York, Oxford University Press, 2003.

<sup>15</sup> The national government decided in August 2005 that it would move to sell off its remaining 51.8% of Telstra over the next two years if the demand was strong enough; see further, C Catalano, M Gratton and M Gordon, “Telstra share slump may force delay”, *The Age*, 18 August 2005; and D Crowe, L Tingle and T Boyd, “Telstra fights ‘draconian’ sale rules”, *The Australian Financial Review*, 18 August 2005, at p 1.

<sup>16</sup> As Stephen Bottomley has pointed out, the alleged greater efficiency of government owned companies is undermined by the fact that public ownership is not voluntary and, as such, individual members of the public are not willing monitors of corporate performance; moreover, they have little incentive to be such monitors; Furthermore, the lack of an effective market for corporate control in government owned companies (ie through takeover) means that managers have little incentive to seek to achieve greater efficiencies: S Bottomley, “Regulating Government-Owned Corporations...” *supra* at p 531.

<sup>17</sup> See further R Tomasic and J Fu, “Regulation and Corporate Governance of China’s top 100 listed companies: Whither the Rule of Law?”, paper presented to Annual Meeting of the ISA Research Committee of the Sociology of Law, Paris, 11-13 July 2005, and available at: <http://www.reds.msh-paris.fr/colloque/tomasic-fu.pdf>.

<sup>18</sup> Uhrig Report, *Review of the Governance of Statutory Authorities and Office Holders*, Canberra, 2003.

criticism.<sup>19</sup> At the same time private sector models and practices have also been subject to some adverse comment and criticism, as seen in the failure of private sector entities to deliver efficiencies to their stakeholders, most notably due to failures in accountability and effective corporate governance. The collapses of Enron in the United States and of HIH in Australia are perhaps good illustrations of this phenomenon.<sup>20</sup>

This article will look at some legal issues regarding the corporatization of state-owned agencies in China and Australia and assess the extent to which it has been possible to transplant private sector models into the bodies which are still largely state controlled. Our conclusions are somewhat pessimistic and suggest that a dominant state shareholding significantly limits the capacity of the state owned company to fully exploit the advantages of corporatization. In our analysis, we draw upon some fieldwork into China's listed companies that we have undertaken with colleagues from Victoria University over the last three years.<sup>21</sup> Whilst there are many ways of describing the subjects of our discussion, we will use the term to "Government Owned Corporations" (GOCs) to refer to corporations incorporated under a general corporations statute, such as the 1993 Company Law of China and the Australian *Corporations Act 2001* (Cth), [as well as State and Territory Incorporation Acts at local level in Australia]; such GOCs are ones in which governments have a substantial or a controlling interest or shareholding. Other types of corporations, such as those, which are the creature of a statute passed by the Parliament, are outside the scope of our discussion as their features will vary greatly depending upon particular inputs by the legislature.

The 2005 *List of Australian Government Bodies*, published by the Commonwealth Department of Finance and Administration lists over 1,100 Australian Government bodies up until the end of December 2004; government companies are a small proportion of this number. The Secretary of the Department of Finance and Administration has noted that there are "...86 entities or office holders of various types under our Financial Management and Accountability Act, and 104 entities of various types under the *Commonwealth Authorities and Companies Act*."

The latter legislation (known as the CAC Act) applies only where government bodies are legally and financially separate from the national government and where they are best governed by a board of directors

<sup>19</sup> See for example, R Gratham, "The governance of government owned corporations", (2005) 23 *C&SLJ* 181.

<sup>20</sup> See for example, R Tomasic, "Corporate collapse, crime and governance – Enron, Anderson and beyond", (2002) 14 *Aust Jnl of Corp Law* 183.

<sup>21</sup> Tomasic and Fu at <http://www.reds.msh-paris.fr/colloque/tomasic-fu.pdf> and R Tomasic, N Andrews and J Fu, "Corporate Governance in China's Listed Companies: Whither the top 100?" paper presented to the Inaugural Asia-Pacific Corporate Governance Conference, Hong Kong, 25-26 August 2005; see conference programme at <http://www.hkbu.edu.hk/~apgc/programme.php>.

and not ultimately controlled by the Minister.<sup>23</sup> However, the number of incorporated Australian Government business enterprises is relatively small,<sup>24</sup> although there is a larger number of incorporated government companies at the State Government or provincial level.<sup>25</sup>

## 2. The increasing use of the corporate form for public purposes

In many respects, the use of the concept of the corporation has to some extent come full circle. In its earlier usages the company was a means of housing various public, governmental and community functions and was part of the system of governance.<sup>26</sup> It was not until the end of the nineteenth century that it began to become the almost universal vehicle for business enterprise, if we leave aside the professions (at least until recently). However, we seem to be returning to a pattern of making greater use of the corporate form to undertake public functions and activities. In part, this may reflect a movement in the legitimacy of the corporation as a social vehicle, something that James Willard Hurst alluded to in his book on the history of the business corporation. Perhaps it is the power of the corporate form in legitimating the power of corporate managers (and insulating them from shareholders) that has been its main attraction for governments in China and in Australia.<sup>28</sup> For some time we have seen efforts to introduce more market-oriented disciplines into the operation of government owned agencies. This has included moves to corporatize and sometimes even privatise public sector agencies or functions. Whilst this is by no means a new phenomenon, it has gained in pace in recent times.<sup>29</sup> Professor Ross Grantham reminds us that: "[p]ublic functions have been undertaken through chartered and statutory corporations since medieval times." He adds,

<sup>23</sup> *Ibid* at p 8.

<sup>24</sup> The Australian Government Department of Finance and Administration lists the following companies: ASC Pty Limited; Australian Postal Corporation; Australian Rail Track Corporation Limited; Australian Technology Group Limited; Health Services Australia Limited; Medibank Private Limited and Telstra Corporation Limited; It also refers to the following other government business entities: Australian Government Solicitor and Defence Housing Authority and Aircservices Australia; see further: <http://www.finance.gov.au/GBPFAU/index.html>.

<sup>25</sup> [http://www.ogoc.qld.gov.au/corporation\\_details\\_2.html](http://www.ogoc.qld.gov.au/corporation_details_2.html) (for a list of 20 Queensland government owned companies); and <http://www.treasury.nsw.gov.au/links.htm> (for a list of 21 New South Wales government owned companies) and <http://www.treasury.tas.gov.au/domino/dtfdtfdt.nsf/4fd752e16a6a34814a256819001ca> (for a list of ten Tasmanian government owned companies).

<sup>26</sup> A Fraser, "The Corporation as a Body Politic", (1983) 57 *Telos* 5.

<sup>28</sup> Stokes, "Company Law and Legal Theory", in W Twining (Ed), *Legal Theory and Common Law*, Oxford, Basil Blackwell, 1986.

<sup>29</sup> For discussions of the use of the corporate form by government in Australia see: G Sawyer, "The Public Corporation in Australia", in W Friedmann (ed), *The Public Corporation: A Comparative Symposium*, Toronto, Carswell, 1954; and R Cranston, *Law, Government and Public Policy*, Melbourne, Oxford University Press, 1987.

however, that “[w]hat makes the modern wave of corporatisation new is the utilisation of a private sector corporate vehicle and governance structure, the registered company.”<sup>30</sup> The supposed greater efficiency of the board of a private company<sup>31</sup> is also said to be enhanced by the so-called “market for corporate control” under which inefficient managers or boards are at risk of being displaced through a corporate takeover which may install a new management team; this risk is less likely in the case of government controlled companies.<sup>32</sup> Also, it should be noted that the shares of a privately owned listed company would normally be transferable so as to allow shareholders to use their funds for more efficient purpose should they decide to sell their shares; the lack of ready transferability of state-owned shares (especially in China) has been another major constraint upon the efficiency of government owned companies. This may be contrasted to a similar, but different problem, in small closely held companies where shares are also not readily transferable, either due to the lack of a suitable market or due to restrictive rules in the company’s constitution which determine the way in which shares are to be offered for sale. However, large government owned companies are very different from small closely held private corporations. It may also be noted that because government owned companies are unlikely to be subject to insolvency proceedings they are further removed from the kinds of competitive forces that are to be found in private companies. Similarly, the fact that their capital raising activities may also often be backed up by the state, means that these companies are further protected from the full operation of the market. Another factor which also contributes to inefficiency in government owned companies arises from the dominance or monopoly position that the company is often given in a particular market (we need to think now further than Australia’s Telstra [the major national telephone company] or China’s Sinopec [China National Petrochemical Company]).

We will now briefly discuss some statutory and regulatory responses to the governance of government owned companies which are dominated by the state as shareholder.<sup>33</sup>

### 3. Australia’s Corporation Law and Government Owned Companies

Whilst there has been much discussion in Australia of the administrative aspects of corporatisation of government owned entities, there has been relatively

little legal analysis of this matter by corporate lawyers. Although there are many forms of corporatization that are available in Australia, the principal forms that are of concern in this article involve incorporation under the *Corporations Act 2001* (Cth) or under a state incorporation statute.

In Australia, the board of a limited liability company would usually be assumed to be concerned to protect the interests of the company as a whole and not merely those of a particular dominant shareholder, such as the majority shareholder. This is usually expressed in terms of the fiduciary duties of directors<sup>34</sup>, although it is increasingly common to introduce some safe harbour defence, such as the business judgement rule.<sup>35</sup> In theory, the company’s “owners” would only hold shares in the company, but do not own the company’s property as this is seen to belong to the company alone; this is because the company is assumed to be the owner of its assets.

Usually, it is assumed that the company’s Board of directors should be the primary arbiter of company policy and decision-making. However, government owned companies in Australia are often required by statute to comply with various public policy objectives often set out in a corporate plan or a statement of corporate intent.<sup>36</sup> Just as many large private sector companies face considerable agency problems, government owned companies also encounter some serious monitoring problems for their owner, the state and ultimately the citizen. In theory, it is usually assumed that a registered company incorporated under a general incorporation statute will have a separate legal personality and that the newly formed company will be legally separate from its shareholders, and have a separate management structure from these shareholders (in this case, the government). This separation is not always apparent in the case of government owned companies. Similarly, in the case of the wholly owned subsidiaries of large private sector company groups, it is also not uncommon to find that special rules have been introduced (as in Australia) to deal with accountability and financial reporting of subsidiaries in such groups.<sup>37</sup> However, corporate law theory in Australia and the United Kingdom assumes that this separation will be the prevailing norm. In any event, the use of the incorporated company form inevitably raises accountability challenges or “moral hazards” in ensuring that the members of the board do not place

<sup>30</sup> Supra at pp 182-182.

<sup>31</sup> See further, Stout, “The unimportance of being efficient: An economic analysis of stock market pricing and securities regulation”, (1988) 87 *Michigan Law Review* 613.

<sup>32</sup> M J Whincop, *Corporate governance in government corporations*, Aldershot, Ashgate Publishing, 2005 at p 65.

<sup>33</sup> For an excellent extended discussion of the legal aspects of government owned corporations, see further: S Bottomley, “Regulating Government-Owned Corporations : A Review of the Issues”, (1994) 53 *Australian Journal of Public Administration* 520.

<sup>34</sup> Determining what constitutes the best interests of shareholders in a business corporation is probably less complex than determining the best interests of the stakeholders in a government controlled company: see further, Whincop, supra at pp 72-73.

<sup>35</sup> See for example, s 180(2) of the *Corporations Act 2001* (Cth) and s 22(1) of the *Commonwealth Authorities and Companies Act 1997*.

<sup>36</sup> *Commonwealth Authorities and Companies Act 1977* (Cth), s 42.

<sup>37</sup> 187 of the *Corporations Act 2001* (Cth); This allows directors of wholly owned companies to act in the best interests of the holding company in certain narrow circumstances; Also see s 323A regarding the preparation of consolidated financial statements for controlled entities that are part of a group of companies.

their own interests above those of the company. This is sometimes referred to as the “agency” problem in large widely held private companies<sup>38</sup> arising from the fact that the owners have handed over control of the company to a board with a class of professional directors who then are seen (by economists at least) to act as agents of the owners.<sup>39</sup> Government owned corporations have had particular difficulty in dealing with agency costs unless they are prepared to adopt the kinds of measures (such as the use of incentives, monitoring and controls) that help to achieve greater efficiencies in private sector companies.<sup>40</sup> Whilst these agency problems are unlikely to be ever completely solved within companies, whether publicly or privately controlled, they are likely to be more severe in government owned enterprises. Grantham has noted that the ministerial responsibility system which supports the accountability of the government owned corporation in Australia is subject to some basic problems when compared with private sector accountability systems. He argues that the position of the Minister (as the sole or principal shareholder in a government owned company) is not comparable to that of a private owner as the Minister is also an agent of the government and of his political party. Grantham therefore points out that “to assess the effectiveness of the Minister as a monitoring device, one must examine the extent to which the agency costs associated with the Minister are adequately constrained.”<sup>41</sup> He goes on to question the effectiveness of ministerial responsibility in ensuring adequate accountability by the government owned company’s board, noting that:

“First, while the Minister as shareholder may have a right to a range of information about the company’s affairs, the Minister may in fact not wish to acquire that information for political reasons... [so as to be able to avoid responsibility]... Second, even where the Minister does detect self-interested behaviour by the GOC’s management, the Minister does not bear the cost of that behaviour or of doing nothing about it..[effectively reducing the Minister’s personal stake in the outcome].. Third, the goals of the Minister in monitoring the GOC are not wholly directed toward

maximizing the value of the company, as is the case with the private sector owner.”<sup>42</sup>

The multiplicity of purposes that are imposed upon the government owned company can be contrasted with the much more focused orientation of the private company on the goal of profit maximization. It is very difficult for the government owned company to replicate this single-mindedness as it will usually also have non-commercial goals and these goals are in part set by the state (such as through instructions or policy statements issued the Minister). Also, the fact that the chief executive of the government owned company is usually appointed by the government, means that the effectiveness of the board in being able to sanction poorly performing management is significantly reduced. This problem exists in Australia (as the Uhrig report has noted);<sup>43</sup> and it also exists in China’s government owned companies where the chairman or chief executive of a state-owned listed company will effectively be appointed by the government.

#### **4. China’s Company Law: Providing an Acceptable Vehicle for State-Owned Companies**

When looking at the corporate laws of China and Australia we find that ideas drawn from the private sector models often sit awkwardly within entities that are still little more than incorporated state owned enterprises. The roots of China’s Company Law are to be found in the logic of the old command planning economy. Whilst it is true that China’s Company Law is only a little more than a decade old, it is a vehicle that is still poorly suited to promoting private sector companies. Paradoxically, it also does not fit comfortably with the patterns of behaviour within government owned companies. This dissonance may not merely be a product of a transitional economy; and there may well be a case for greater differentiation in the mechanisms for the governance of privately as opposed to government controlled companies. Similarly, in Australia, corporate law ideas drawn upon in the incorporation of public enterprises also sometimes sit uncomfortably in such government owned companies. China’s 1993 *Company Law*, and its various corporate governance regulations and Codes, have primarily been enacted with a view to solving problems in the state owned sector. The emergence of a large private owned corporate sector has almost been an unanticipated consequence. In

<sup>38</sup> See further, MC Jensen and WH Meckling, “Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure,” (1976) 3 *Journal of Financial Economics* 305-360.

<sup>39</sup> In ensuring that the board operates efficiently and in the interests of the company as a whole, such agency problems are usually addressed in a number of ways; these include the threat of being removed by another board through a takeover (the so-called “market for corporate control”); corporate governance standards may also seek to closely monitor the conduct of boards; furthermore, the fidelity of the board to the interests of the owners may be strengthened by resort to various bonding devices, such as share option schemes and the use of incentives; the threat of insolvency and the need to be seen as efficient for purposes of attracting capital through stock exchanges provide further methods of disciplining the directors: see further, Grantham, *supra* at pp 185-187.

<sup>40</sup> Grantham, *supra* at p 188.

<sup>41</sup> *Ibid* at p 189.

<sup>42</sup> *Ibid* at p 190.

<sup>43</sup> This is pointed out by Grantham, *ibid* at p 191. Uhrig noted that in government owned companies “...typically, the priorities of the board should be the priorities of government as the representative of the community. Unless limited by the legislative framework, governments...should have the capacity to direct the board to act in accordance with government priorities.” This is because, as Uhrig noted, “...despite the oversight of an authority being delegated to a board, Ministers will often remain accountable for its actions” ; see further, Uhrig Report, *Review of the Governance of Statutory Authorities and Office Holders*, Australian Government Publishing Service, Canberra, 2003 at p 42.

examining the development of China's corporate governance, Professor On Kit Tam suggested that the American and UK "outsider" control models of corporate law and governance were ill-suited to the "insider" based control structure of state-owned enterprises in China.<sup>44</sup> Nevertheless, Chinese legislators have continued to seek to replicate western private sector corporate models within PRC laws. Whilst the PRC Company Law has also allowed for the growth of private limited liability companies (with up to 50 shareholders; per Art 20), special rules were developed to cater for the interests of the State.

For example, PRC limited liability companies may also be "wholly state-owned companies", as provided for in Articles 64 to 72 of the Company Law. Such companies do not have a shareholders' meeting and its board of directors takes the place of such a shareholders' meeting (Art 66). Whilst the board of a wholly owned company is entitled (by Art 46) to exercise wide functions and powers (such as deciding upon the business and investment plans of the company), it remains the case that a State-authorized investment institution, or a government department so authorized by the State, is entitled to "exercise supervision and administration over the State-owned assets of the wholly State-owned company..." (Art 67); this includes the power to appoint and replace the members of the board and to appoint a chairman and vice-chairman of the wholly state-owned company (Art 68). Any state owned assets contributed to the company will not become part of the company's property as Article 4 provides that "[t]he ownership of State-owned assets in a company shall vest in the State." This applies both to limited liability companies and to the more broadly based "joint stock companies" that are also provided for in the Law. However, the Company Law does permit successful large wholly state-owned companies to exercise the rights of asset owners over state owned assets held by them, provided that this is authorised by the State Council (Art 72).

Normally, large corporate entities in China will be incorporated as "joint stock limited companies" which must have a registered capital of at least ten million yuan (Art 78); this is to be contrasted with the highest registered capital requirement for limited liability companies of half a million yuan (Art 23). However, in the case of joint stock companies, these must have at least one thousand shareholders who each hold shares to the values of at least one thousand yuan. At least the general public must hold 25% of the total shares of a listed company, except that this figure may be 15% in the case of larger listed companies with a share capital of more than 400 million yuan (Art 152). The sponsors of a joint stock company incorporated by way of a share offer, must subscribe for at least 35% of the company's shares, with the remainder

being available to the public (Art 63). However, in most of the top 100 PRC listed companies, the state will hold significantly more than 35% of the shares in the company. Companies seeking to offer shares to the general public need to gain official approval (Art 85).

The board of a joint stock company is deemed by Art 112 to be responsible to the shareholders meeting. It is also entitled to exercise various function and powers, such as "to decide on the business operation plans and the investment plans of the company." A joint stock company is required to convene a shareholders general meeting at least once a year (Art 104), although interim general meetings may also be convened from time to time (Art 105). The general meeting of shareholders in such a company is also vested with various "functions and powers"(by Art 103); these include the power "to decide upon policies on [the] business operation and [the] investment plans of the company" and the power "to elect and replace members of the board of directors and to decide upon matters concerning the remuneration of the directors" (per clauses (1) and (2) of Art 103). Where a listed company has a dominant state owned shareholder, there tends to be a low level of participation by other shareholders in such general meetings; it is therefore inevitable that the AGM has become something of a formality in such circumstances. The general meeting is usually presided over by the company Chairman. The chairman is in many ways a powerful figure in large state-owned Chinese companies and serves as the chief executive; he or she is also deemed to be "the legal representative of the company" (Art 113). The board of directors is only required to meet twice a year (Art 116). When the board is not in session, the chairman may be authorized to perform some of its functions and powers (Art 120).

In the case of larger listed companies with a substantial state shareholding, the chairman will have been effectively appointed by a controlling state organ with the support of the Communist Party. He or she may have come for a career as an official in government service and may move on to such a governmental position after ceasing to be the chairman. In the late 1990s the World Bank reported that senior officers in the company might also hold official government positions contemporaneously.<sup>45</sup>

The Party is permitted by the Company Law to continue to play an important role within PRC companies<sup>46</sup>, and this is especially so in the top 100 listed companies, particularly in regard to company personnel matters. Indeed, the fact that the Party Secretary within a Chinese listed company usually serves in one of the senior board position, such as the position of Chairman or General Manager, means that a high degree of party control has been maintained in government owned companies in China and, as a

<sup>44</sup> OK Tam, *The Development of Corporate Governance in China*, London, Edward Elgar, 1999. Also see generally, Jian Chen, *Corporate Governance in China*, London, RoutledgeCurzon, 2005.

<sup>45</sup> World Bank, *supra* at p 38.

<sup>46</sup> Article 17 of the Company Law provides that "The grass-roots organization of the Communist Party of China in companies shall carry out their activities in accordance with the Constitution of the Communist Party of China."



consequence, the independence of the board is likely to be much reduced. It has also been suggested that the dominance of the Party in many Chinese corporatized state owned enterprises has led to a considerable degree of corruption as the company lacks an adequate countervailing force of checks and balances.

It should be noted that Art 153 provides that the listing of a joint stock company requires the approval of the State Council or its authorised securities department (these powers have now been delegated to the CSRC). Listing has been sought after by many companies, but for some time listing has operated on the basis of a quota system controlled by the state, with a view to preventing too many listings which would soak up available capital. The 1998 PRC Securities Law now suggests that once some basic listing information has been provided to the CSRC (as set out in Art 45), the stock exchange will arrange to have the company listed within six months (Art 46). It is interesting to note that Art 44 of the Securities Law provides that the "State encourages companies that conform to industrial policies and meet the conditions for listing to have their shares listed."

In any event, the paucity of minority shareholder protection provisions in the PRC Company Law and in the Securities Law is problematic in the context of the dominant state owned shareholders; this has inevitably called the integrity of PRC listed companies into question, especially given the existence of large numbers of connected transactions that advantage the dominant shareholder and disadvantage the minority shareholders.<sup>47</sup> This has led to efforts to provide greater protection to minority shareholders, such as by the appointment of so-called "independent directors" to the board of listed companies.<sup>48</sup>

Independent directors have been given the somewhat awesome task of seeking to ensure the integrity of the board (by monitoring related party transactions and serving as members of Audit Committees, as well as representing the interests of minority shareholders).<sup>49</sup> This has been done, not by amendment of the Company Law, which does not speak of independent directors as such, but by way of regulations issued by the CSRC, as the State Council authorized body responsible for the oversight of listed companies. Much has been written about the difficult challenge that has been given to these "independent directors" of state controlled listed companies.

In its review of the effect of the state as the principal owner in China's corporatized state owned entities, the World Bank concluded in 1997 that these state owned companies to varying degrees failed to satisfy each of the four key features of the corporation. Although much has happened in the intervening years since this report was first published, there is still much

in these findings that rings true. Interestingly, the Bank observed at that time that:

"With respect to establishment of a *separate legal identity*, there has been only a minor degree of corporatization...In the case of *limited liability*, there is a perception that the State's liability for SOEs is greater than its formal or legal shareholding. Moreover, an organizational blurring has occurred and this has given rise to widespread problems with the definition and allocation of responsibility for liabilities...*Centralized management*, another element of the modern corporation, is relatively well established – except that usually the corporate form envisions shareholders to come first and then the most competent management is chosen."

The World Bank report went on to add that :

"In China, centralized management existed *before* the company did in fact, before there were shareholders...In China, shareholders, as such, seem to have little, if any, influence on management. This will remain the case so long as the majority shareholder remains the same state agency and the same persons that in the old system appointed and gave orders to management. At the same time, management is often lacking the authority to deploy and dispose of the corporation's property...[Finally] Transferability of shares is available for only the small portion of companies whose shares are listed on the two stock exchanges..."

More recently, research published by the Shanghai Stock Exchange has also highlighted this problem by pointing to the conflict between the role of government as owner and regulator of listed companies. The Shanghai Stock Exchange report noted that:

As the immediate predecessor of China's market economy is a planned economy, the government inevitably becomes a key figure in corporate governance. On the one hand, the government enacts laws and regulations, sets up rules for the market, regulates the economic activities, and supervises the implementation of corporate governance institutions that it imposes on the companies. On the other hand, the government is a major shareholder of the company. The overlap and conflict of being both referee and player, combined with the inefficiency caused by pursuing political objectives instead of taking responsibility as a shareholder, are the apparent negative influence on governance qualities."<sup>50</sup>

It should be added however, that despite recent announcements that a process of disposing of some state owned shares has begun<sup>51</sup>, the state owned shares of China's listed companies have usually not been tradeable on stock exchanges, although some

<sup>47</sup> Lu Tong, "Corporate Governance in China", at p 1, (mimeo), Chinese Academy of Social Sciences, Beijing.

<sup>48</sup> See further, M Wang, "The independent directorship system in China", (2004) 17 *Aust Jnl of Corp Law* 243-259.

<sup>49</sup> Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies issued by CSRC on 16 August 2001.

<sup>50</sup> Shanghai Stock Exchange, *ibid* at p 35.

<sup>51</sup> See further Notice of China Securities Regulatory Commission on Relevant Issues of Pilot Reform of Equity Division of Listed Companies issued by CSRC on 29 April 2005.

generally small strategic investments by major foreign partners have been encouraged.<sup>52</sup>

It is clear that the principal stumbling block facing the further development of corporate governance in Chinese listed companies is to be found in the dominance of the state as shareholder and the mixed messages that this sends about the usual principles of corporate law that are assumed to apply when the corporate form is used by private companies. The Shanghai Stock Exchange in its 2003 corporate governance report also highlighted the problematic nature of “misplaced government roles”.<sup>53</sup> The Exchange pointed out that the effect of the state as shareholder dominating government owned companies in China meant that the controllers of these companies were “governed by political incentives and individual utility maximization instead of shareholders’ value.”<sup>54</sup>

This situation will probably require a cultural shift before there is a substantial change in the situation. One way of seeking to engineer this cultural change is through the use of guidelines and codes of conduct which are sensitive to the real situation and problems facing government owned companies. To some extent this is an extension of the idea of fiduciary duties that have been so important in fashioning relationships within the business corporation. At the present time, it is recognised in China that: “The lack of due diligence of the director and the management in performing their fiduciary duty leads to the sacrifice of the principal’s interest.”<sup>55</sup> International influences, such as the work of the OECD and its annual corporate governance dialogues with China may be effective in leading to a slow movement in this regard.

### 5. The place of principles and guidelines in the governance of government controlled companies: stabilizing the role of the state in corporate governance

Like all dichotomies, the public-private distinction is an inherently unstable one given the many ambiguities that arise where public purposes are implemented through what is characterised as a private corporate structure.<sup>56</sup> For example, the alleged greater independence from government of government owned corporations is sometimes simply a mask for ministerial political control.<sup>57</sup> It might also be said that there is a considerable difference in the conduct of government-owned companies depending upon the

level of control or shareholding that is held by government. A similar point may be made based on the degree to which the government owned corporation is seen to be involved in a strategically important industry. Ultimately however, where possible, government owned companies need to uncouple their commercial and non-commercial objectives if the integrity of the company is not to be undermined. Efforts to refine or finetune governance responsibilities and roles within the corporate structure have become increasingly common, as may be seen in efforts to develop softer or more flexible statements of rules and principles that are applicable to corporate governance<sup>58</sup>. The OECD has led the way here. But Stock Exchanges<sup>59</sup>, Audit and accounting bodies and bodies like Standards Australia<sup>60</sup> have also made important contributions to creating what is essentially a level playing field. In an attempt to enhance the integrity of the China’s state-owned enterprise oriented Company Law, the China Securities Regulatory Commission (CSRC) in January 2001 promulgated its “Code of Corporate Governance for Listed Companies in China”. This Code was largely based upon the *OECD Principles of Corporate Governance* (referred to hereinafter as the “OECD Principles”).<sup>61</sup>

The OECD Code was devised for companies that were essentially privately owned; interestingly, the OECD has now developed a separate Code for state-owned companies, recognising that state owned enterprises face distinctive governance challenges. This new code is known as the *OECD Guidelines on the Corporate Governance of State-owned Enterprises* (referred to hereinafter as the “OECD Guidelines”). Whilst these OECD Guidelines are intended to complement the OECD Principles of Corporate Governance, unlike the latter, they unashamedly “take the perspective of the state as an owner.”<sup>62</sup> Arguably, China might have derived greater benefit from seeking to apply these Guidelines to its listed companies, given their current ownership structure. The preamble to the OECD Guidelines notes that:

“...SOEs also face some distinct governance challenges. One is that SOEs may suffer just as much from undue hands-on and politically motivated ownership interference as from totally passive or distant ownership by the state...More fundamentally, corporate governance difficulties derive from the fact that the accountability for the performance of SOEs

<sup>52</sup> See further, Shanghai Stock Exchange, “Abstract, China Corporate Governance Report 2003” at pp 46-47.

<sup>53</sup> <http://rru.worldbank.org/Discussions/OpenFile.aspx?id=1284>.

<sup>54</sup> Ibid at p 48

<sup>55</sup> Ibid at p 57.

<sup>56</sup> See generally: C Stone, “Corporate Vices and Corporate Virtues: Do Public/Private Distinctions Matter?”, (1982) 130 *University of Pennsylvania Law Review*; and C Sampford, “Law, Institutions and the Public/Private Divide” (1992) 20 *Federal Law Review* 185-222.

<sup>57</sup> Paul Finn has referred to “the duplicitous mask of independence, which conceals direct political manipulation by ministers”, P Finn, “Public Trust and Public Accountability”, (1993) 65(2) *Australian Quarterly* 59. This manipulation may occur through the role played by the appointment of government officials as nominee directors to the boards of government owned corporations.

<sup>58</sup> See further, A Armstrong, “Corporate governance standards: intangibles and their tangible value” (2004) 17 *Aust Jnl of Corporate Law* 97-110.

<sup>59</sup> See for example, Australian Stock Exchange, “Principles of Good Corporate Governance and Best Practice Recommendations”, issued by the ASX Corporate Governance Council in March 2003.

<sup>60</sup> Standards Australia, *AS 8001-2003: Corporate Governance – Good governance principles*, 2004.

<sup>61</sup> For an earlier discussion of these principles, see R Tomasic, “Good corporate governance: The international challenge”, (2000) 12 *Aust Jnl of Corp Law* 142-163.

<sup>62</sup> *OECD Guidelines on the Corporate Governance of State-owned Enterprises*, p 2.

involves a complex chain of agents (management, board, ownership entities, ministries, the government), without clearly and easily identifiable, or remote, principals. To structure this complex web of accountabilities in order to ensure efficient decisions and good corporate governance is a challenge.<sup>63</sup>

The OECD Principles of Corporate Governance proclaimed that a company's "corporate governance framework should protect and facilitate the exercise of shareholders' rights" and went on to call for the "equitable treatment of all shareholders" and the recognition of the "...rights of stakeholders." In contrast, the OECD Guidelines emphasise the role of the state as owner. They begin by, *inter alia*, calling for "a clear separation between the state's ownership function and other state functions that may influence the conditions for state-owned enterprises, particularly with regard to market regulation."<sup>64</sup> Whilst also emphasising the need for the equitable treatment of all shareholders,<sup>65</sup> the Guidelines highlight the centrality of the role of the State as owner and generally note that: "The state should act as an informed and active owner and establish a clear and consistent ownership policy, ensuring that the governance of state-owned enterprises is carried out in a transparent and accountable manner, with the necessary degree of professionalism and effectiveness."<sup>66</sup>

Under this broad framework, the OECD Guidelines urge that the state should be an active owner and consequently that it should seek to "exercise its ownership rights according to the legal structure of each company."

Some of the other guidelines that are urged by the OECD in regard to the position of the state as an owner are as follows: the government should develop and issue an ownership policy that defines the overall objectives of state ownership, the state's role in the corporate governance of SOEs, and how it will implement its ownership policy; the government should not be involved in the day-to-day management of SOEs and allow them full operational autonomy to achieve their defined objectives; the state should let SOE boards exercise their responsibilities and respect their independence; the exercise of ownership rights should be clearly identified within the state administration. This may be facilitated by setting up a co-ordinating entity or, more appropriately, by the centralisation of the ownership function. The co-ordinating or ownership entity should be held accountable to representative bodies such as the Parliament and have clearly defined relationships with relevant public bodies, including the state supreme audit institutions.<sup>67</sup> This is a very important statement of considerations that might help to stabilise the role of the state in corporate governance. Applied to the impasse that currently faces many state-controlled

listed companies in China, these guidelines suggest useful pathways for further development.

These guidelines also set out some other important ideas that our research would suggest would be valuable in the context of PRC listed companies; these include financial reporting by listed SOEs "according to high quality internationally recognised standards", the separation of the role of the chair from that of the CEO and empowering boards to allow them to appoint and to remove the CEO.<sup>68</sup>

## 6. Some Tentative Conclusions

This article has sought to identify some of the tensions that exist in government owned companies in Australia and especially in China. It has shown that the dominant position of the state as shareholder has the potential to undermine some fundamental features of the modern corporation. Traditionally there has been a heavy focus on conformance with rules and regulations in government owned companies, without adequate attention being given to performance issues. However, even this focus on conformance with rules, has been problematic as it has not gone far enough. This conformance/performance dichotomy presents a major challenge that has yet to effectively handle the legal problems identified above. International debates about appropriate standards to apply to the governance of government owned companies are very important as is the expression of this debate in the form of international standards or guidelines for such companies. In this regard, the problems found in China seem to be massive and provide instructive insights as to the limits of corporate governance in government owned companies. Best practice guidelines of the kind developed by the OECD and the Australian Audit Office provide a modest path forward, especially in regard to the management of conflicts of interest. However, at the end of the day, despite some wishful thinking about the convergence of private and government owned company models, there will remain some fundamental differences between these two types of company. The governance of government owned companies presents a challenge for integrated governance practices. At present, these organisations are torn between pursuing often contradictory goals. The challenge is to bring about greater integration within government owned corporations and to ensure that they operate in a less fragmented way. It is well established in the case law on the private corporation that directors need to perform their duties in the interests of the company as a whole and not merely in the interests of one shareholder or stakeholder group in the company. As we have seen, this has presented problems as companies have had mixed success in reconciling their commercial and non commercial goals.

<sup>63</sup> Ibid at p 3.

<sup>64</sup> Ibid at p 4.

<sup>65</sup> Ibid at p 6.

<sup>66</sup> Ibid at p 5.

<sup>67</sup> Ibid at p 5.

<sup>68</sup> Ibid at pp 8 and 9.

## CHINA'S SOE REFORM: A CORPORATE GOVERNANCE PERSPECTIVE

Weiying Zhang\*

### Abstract

This paper argues that Chinese state enterprise reform has been relatively successful in solving the short-term managerial incentive problem through both its formal, explicit incentive mechanism and its informal, implicit incentive mechanism. However, it has failed to solve the long-term managerial incentive problem and the management selection problem. An incumbent manager may have incentives to make short-term (but hidden) profits, but at present there is no mechanism to ensure that only qualified people will be selected for management. The fundamental reason is that managers of SOEs are selected by bureaucrats rather than capitalists. Since bureaucrats have the authority to select managers but do not need bear the consequences of their selection, they have no proper incentives to find and appoint high ability people. Since good performance does not guarantee that the incumbent manager will stay long, the manager does not have long-term incentives. The paper also argues that these built-in problems of state ownership cannot be solved by state-dominated corporatization. Bankruptcy has not played a role in disciplining managers because the state-owned banks have neither the incentive nor the ability to enforce debt contracts. To ensure that only high ability people will be professional managers and that managers can be well disciplined, the authority of selecting management must be transferred from bureaucrats to capitalists. This calls for privatization of both state enterprises and state banks. China is well on its way to privatization of state enterprises, but privatization of state banks is yet to come.

**Keywords:** SOE, China, privatization, management

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The state-owned enterprise (SOE) reform has been on the top of the China's economic reform agenda since 1984. Is China's SOE reform a success or a failure? The answer to this question is almost two-point distributed among economists. One argument, mainly from foreign economists concerned with China ("outsiders"), is that the reform has been quite successful in terms of improvement in total factor productivity (TFP). Influential research, among others, include Chen et al (1988), Gordon and Li (1989), Dollar (1990), Jefferson, Rawski and Zhen (1992), McMillan and Naughton (1992), Hay et al (1994), Groves et al (1994, 1995). According to these studies, the annual increase in TFP has been 2-4% since 1979, much higher than in the pre-reform period.<sup>1</sup> Based on this finding, some economists even argue that private property rights may not be necessary for efficiency.

But, most Chinese economists ("insiders") think that the reform has not been successful, at least in terms of profitability of SOEs. It is widely reported (and most people believe) that one third of SOEs make

explicit losses, another one third make implicit losses, while only one third are slightly profitable.

Why are the judgments so divergent? There are several possible explanations. One is that the outsiders use econometric models to draw their conclusions, while the insiders are used to making judgment based on their daily experience and intuition. When aggregated data are used to analyze the performance of the reform, it is quite possible to ignore some important phenomena. On the other hand, when intuitive judgment is used, one might see trees but not the forest. The second possible reason might be psychological. Chinese economists are "forward looking", and they compare today's situation with the ideal model in their minds, and they feel unhappy whenever they find there are some undesirable gaps between reality and ideality. In contrast, foreign economists are "backward looking", comparing today's situation with the past. They feel happy whenever they find today is better than yesterday.

Certainly, this cannot be the whole story. The most important question is: What criteria should one use in evaluating the SOE reform? For China's SOEs, both TFP and profitability are heavily distorted indicators (but TFP is better than profit). In my view, the proper criterion should be a "qualitative one". "Corporate governance" is such a candidate. Corporate

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<sup>1</sup> However, the study by Woo *et al* (1994) based on survey data for 300 SOEs found that TFP growth was zero at best during 1984-1988. More recently, in a comparative analysis of Chinese industry using a survey data set including 967 SOEs, Huang and Meng (1997) also calculated negative TFP growth for SOEs in the 1985-1990 period.

governance is a concept characterizing the contractual relation between different members of the firm. It is structured for solving the two basic problems inherent within the firm. The first is the incentive problem; that is, how to motivate all participants of the firm to contribute to the firm's output, given that output is a collective outcome and individual contribution is hard to measure? The second is the management selection problem; that is, what kind of mechanism can ensure that only the most entrepreneurial people are employed to fill in the management position, given that entrepreneurial ability is hard to observe?

From the point of view of corporate governance, my basic argument is that: China's SOE reform has been relatively successful in terms of solving the short-term managerial incentive problem; but more importantly, it has not been successful in terms of solving the management selection mechanism and the long-term managerial incentive problem. That is, the variety of reform measures adopted since 1978 (basically the management contracting system) have provided the incumbent management of SOEs with moderate incentives to make short-term profits, but the authority of selecting management is still held by the communist party's personnel departments and the industrial bureaucracy, who have inadequate incentives, and also lack the information, to find and to seat the entrepreneurial people for managerial positions. The fundamental reason is that bureaucrats, unlike their capitalist counterparts, do not bear risks for their selections.<sup>2</sup> Because of this, managerial tenure is little dependent on the performance of the enterprise, and this in turn eliminates the manager's long-term incentives to run the enterprise efficiently. In addition, state-owned banks have neither the incentive nor the ability to enforce debt contracts. To solve the management selection problem and the long-term managerial incentive problem, the authority of selecting management must be transferred from bureaucrats to capitalists. This calls for privatization of both state enterprises and state banks.

This paper is organized as follows. Section 1 provides a theoretical framework of corporate governance, and discusses how management is selected and disciplined by shareholders and debtholders in the capitalist firm. Section 2 discusses how successful or unsuccessful China's SOE reform has been in solving both the managerial incentive problem and the management selection problem. I provide a number of explanations for why neither the management contract system nor the state-dominated corporatization can achieve their assumed goals, and why bankruptcy has failed to play an effective role in disciplining SOE managers, from a corporate governance perspective. Section 3 points to new developments of SOE reform, that is, ongoing privatization of SOEs.

<sup>2</sup> More precisely, risks that a bureaucrat bears are very different from risks that a capitalist bears.

## **1. Analytical Framework: What Does Corporate Governance Do in a Capitalist Firm?**

### **1.A. The Origin of the Classical Capitalist Firm and Capital-Hiring-Labour**

The best way to understand the problems facing the state-owned enterprises is to begin with the origin of the capitalist firm and its contractual structure.

The firm is a cooperative organization of different participants (factor-owners). From the point of view of functioning, all participants can be grouped into three types of members: the marketing member, producing members and capitalists. The marketing member makes decisions of "what to do and how do it" (Knight, 1921), or "discovering the relative prices" (Coase, 1937); the producing members execute these decisions by transforming inputs into outputs physically; and the capitalists finance decisions made by the marketing member. Because of alienability of physical capital, the capitalists may not stand by their capital and therefore can be "outside members". In contrast, both the marketing member and the producing members are always "inside members". A necessary condition for a capitalist to be an insider is that he also works either as the marketing member or as a producing member. In other words, an inside capitalist must play dual functions. For obvious reasons, I often refer to the marketing member as the decision-maker and the rights to undertake marketing as decision rights. The importance of marketing comes from uncertainty facing the firm (Knight, 1921). In fact, without uncertainty, there would be no need for the firm. Uncertainty makes marketing or decision-making play the dominant role in determining the return of the firm. The firm is more likely to go bankrupt when it produces a "wrong" product at low cost than when it produces a "right" one at high cost. Ability to make decisions is commonly referred to as entrepreneurial ability. Although everyone may possess some entrepreneurial ability, the observation is that individuals differ in their entrepreneurial ability. This is so not just because different people face different costs of collecting and processing information, but mainly because entrepreneurial ability greatly depends upon the person's "alertness" (Kirzner), "imagination" (Shackle), and "judgment" (Casson). All these personal characteristics are at least partially innate and uneducable. The optimum requires that marketing or decision rights should be assigned to the one who has the highest entrepreneurial ability. However, the problem is that, unlike capital, entrepreneurial ability is not easy to observe. Given this constraint, for the firm to survive and to be profitable, there must be a mechanism to ensure that only a sufficiently (if not the most) qualified person will be the marketing member. This is the "management selection problem".

The dominance of the marketing member does not mean that the producing members and capitalists are irrelevant or unimportant. The return to the firm is a

joint stochastic outcome of actions and services supplied by all members. Because of uncertainty and teamwork, it is impossible to reward all members with fixed contractual payments corresponding to their respective contributions to the total return (Alchian and Demsetz, 1972). This creates an incentive problem: some party may take an action (e.g., shirking) which benefits himself but costs others. To deal with this problem, there must be a mechanism which makes each member as responsible for his actions as possible. This is the "incentive problem".

The above two problems are interacted with each other, because the return to the firm is jointly determined by both ability and actions. Zhang (1994) showed that the observed organizational structure of the capitalist firm can be understood as an optimal response to these two problems. Briefly speaking, the two problems are solved by assigning a principalship. Here principalship is defined by residual claimancy and control rights. As the term suggests, the residual claim is an entitlement to claim the residual (total return minus contractual payments). Control rights, roughly speaking, refer to the rights of selecting and monitoring other agents.<sup>3</sup> From the incentive point of view, the residual claim should be assigned to the marketing member. This is not only because the marketing member plays the dominant role in determining the residual, but also because his behavior is more difficult to monitor than others' (asymmetry of monitoring).<sup>4</sup> The dominance role implies that the loss of the marketing member's incentive is more costly than that of any other members' incentives, and therefore it pays to sacrifice the latter for the former. The asymmetry of monitoring implies that assigning the residual to the marketing member will incur much less "aggregated" incentive losses.<sup>5</sup> The two factors together ensure that the welfare loss when the marketing member is the residual claimant is lower than when the producing members are the residual claimant. Thus the marketing member becomes the "entrepreneur" and the producing members become

"workers".<sup>7</sup> However, given that entrepreneurial ability is not well observable, free choice of occupation implies that there would be too many unqualified people claiming to be entrepreneurial. The reason is as follows. Because of the limited liability (more generally, the non-negative consumption) constraint, the low-bound net residual, and therefore the net expected return of being an entrepreneur instead of being a worker is higher when one's personal wealth is low rather than high. This implies that a person with lower personal wealth is more likely to over-report his entrepreneurial ability than a person with high personal wealth. In other words, in so far as entrepreneurial ability is concerned, the rich are more likely to be honest and credible, when they choose to be the entrepreneur. Priority in being the entrepreneur is given to capitalists because the choice of the rich is more informative than the choice of the poor in the sense of signaling entrepreneurial ability. This legitimizes the institutional characteristics of the classical capitalist firm: an entrepreneur is also a capitalist and the residual becomes profit of capital. Thus, the observed capital-hiring-labour can be understood as the "self-selection" mechanism of entrepreneurship. Under such a mechanism, only those high ability would-be entrepreneurs can become actual entrepreneurs.

### 1.B. The Origin of the Joint Stock Company and Functions of Corporate Governance

The above discussion shows that the function of capital-hiring-labour is to exclude inferior candidates from entrepreneurship. However, the capital constraint is double-edged. Because the distribution of ability and the distribution of personal wealth in the population are the same in reality, liquidity constraints also exclude those with high ability but low assets from being the entrepreneur. On the other hand, the capital owned by high ability people earns its factor price plus a pure profit (rent) from signaling, while the capital owned by the low ability people can earn only its factor price because they have no ability to signal. This implies that there is a profitable opportunity for cooperation between high-ability-low-capital people and low-ability-high-capital people. Although a rich person with low ability cannot make a profit by directly marketing, he may increase his return by using his capital to signal someone else's ability, if he knows some high ability people (e.g., his relatives), or if searching for high ability is not too costly. On the other hand, a high ability person can also increase his return if he can convince the rich that he is really good at marketing. Furthermore, the incentive for each party to search for the other party is an increasing function of their respective resources (ability or wealth), because the more personal wealth (entrepreneurial ability) one has, the more rent one can earn, if

<sup>3</sup> According to Grossman and Hart (1986), control rights result from contract incompleteness and therefore are residual rights. In the present paper, control rights are more loosely used. They consist at least of two components: one is rights to make business decision and the other is rights to select and monitor the marketing member.

<sup>4</sup> Asymmetry of monitoring is quite intuitive. A glance at the producing members will reveal whether they are working, while a stare at the marketing member may tell little about what he is thinking about.

<sup>5</sup> This argument can be sharpened by the following example. Suppose that there is a working team of two people, A and B. They work only during the night when the moonlight shines. The production technology requires that person A works in the light while person B works in the shadow. The output cannot be attributed to each individual's marginal effort. Then, obviously, it is preferred to let person B claim the residual rather than person A, because person A cannot see what person A does while person B can easily see whether person A works hard or shirks. In the context of the firm, the marketing member is a worker-in-the-dark, whereas the producing member is a worker-in-the-light.

<sup>6</sup> Yang and Ng (1995) argue that management claiming residual is indirect pricing of managerial services.

<sup>7</sup> Here following Knight (1921), we understand that the entrepreneur has dual functions: making decisions and bearing risks.

searching is successful. As a result, they become joint entrepreneurs: the high ability person is called the manager by doing marketing, and the rich are called claim-holders (shareholders or debtholders by claiming the residual and taking the responsibility for selection of the qualified manager). This is the origin and the nature of a joint-stock company.

A joint-stock company as a cooperation between ability and wealth causes several agency-type problems, however. First, because of imperfect observation as well as the time-taking process of revelation of ability, a capitalist inevitably makes some mistakes in picking a manager. Someone who was initially thought of as high ability may prove a lemon as the cooperation proceeds! If this is the case, a chance should be given to the capitalist to correct his mistake (of course, correction of the mistake can only minimize rather than eliminate the cost of the mistake, otherwise nobody cares about mistakes). The mistake can also occur the other way: a high-ability manager may be blamed for being a lemon by the capitalist's misjudgment. Because sacking a manager sends on average bad news of ability, the high-ability manager will be unfairly harmed. There should be a mechanism to protect the manager from such a mis-treatment. Second, because of the dominant importance and poor monitorability of managerial activities, there is a serious incentive problem on the manager side. This suggests that managers should be motivated by some effective incentive mechanism. Third, when the capitalist is an outside member of the firm, capital itself is more vulnerable to abuse;<sup>8</sup> and also the revenue may not be verifiable for outsiders so that it might be consumed as perks or invested in unprofitable projects by the manager rather than paid out to investors. Because abuse of capital and mis-use of revenue can benefit the manager in various ways, it is necessary for the capitalist to have some voice regarding the use of funds. Fourth, when capital demand is high, investors will be diversified. This creates an incentive problem of monitoring on the capitalist side, because the cost of monitoring is concentrated while the benefit of monitoring is spread. There should be some mechanisms to mitigate this free-rider problem. Corporate governance is assumed as such a mechanism which addresses all these agency problems within a joint-stock company. It governs relationships between different factor-owners of the firm, and in particular between capitalists and managers through allocation of residual claim and control rights by both explicit and implicit contracts.<sup>9</sup>

What is an efficient corporate governance system? In this regard, economists have come to the following conclusions:

<sup>8</sup> Capital abuse by management can take various forms, one of which is "overinvestment" for career concerns (see Holmstrom and Richart i Cost, 1986). For more, see Shleifer and Vishny (1997).

<sup>9</sup> Focusing on corporate governance mechanism in this paper does not mean that product market competition is not important in disciplining management.

First, and most fundamentally, the residual claim and the control right should be matched as much as possible, i.e., whoever has claim to the residual and assumes risks should also have rights to control, or conversely, whoever has rights to control should assume risks. Frank Knight (1921) might be the first economist arguing for this matching.<sup>10</sup> More recently, Harris and Raviv (1989) argue that the claim residual should match the rights to control (voting rights) because otherwise "cheap vote rights" would lead to unqualified people being more likely to take over control of the firm. Dewatripont and Tirole (1994) argue that residual claim is incentive schemes for controlling parties to take appropriate course of action. Of course, full matching between residual claim and control rights is impossible, and otherwise there would be no agency problem at all. Second, managerial compensation should be more closely linked to performance of the firm, rather than fixed by contract. In other words, the manager should bear some risks! This argument has been well discussed in the literature of principal-agent theory.<sup>11</sup> In fact, this argument can be taken as a corollary of the first argument since, by his functioning as the marketing member, the manager holds "natural" control rights of business decisions, and therefore must be motivated by residual sharing, given that his actions are difficult to monitor and to contract upon. In particular, in order to motivate the manager to improve long-term productivity of the firm, not just to increase total sales revenue and current profits, managerial compensation should be more strongly tied to long-term stock price performance. In particular, it is desirable for the manager to hold a considerable stake in the firm as an inside owner, since only by so doing can the manager's interest be more concurrent with the outside shareholder's interests (Jensen and Meckling 1976).<sup>12</sup> Third, as discussed earlier, the authority of selecting and monitoring management should be assigned to capitalists (Zhang, 1994). This argument can also be taken as a corollary of the first argument, since, by nature, capitalists are inevitably the eventual risk-bearers, and only they have adequate incentives to select good managers and dismiss bad managers, and to monitor managerial performance. Fourth, the optimal corporate governance should be characterized by a state-contingent control structure; that is, the control rights should be contingent on the state of nature such that different claim-holders control the firm in different state. (Aghion and Bolton, 1992; Dewatripont and Tirole, 1994). The reasoning is that,

<sup>10</sup> "with human nature as we know it would be impractical or very unusual for one man to guarantee to another a definite result of the latter's actions without being given power to direct his work. And on the other hand the second party would not place himself under the direction of the first without such a guarantee." (p.270)

<sup>11</sup> For an excellent survey, see Hart and Holmstrom (1987).

<sup>12</sup> The evidence of strong correlation between the managerial payment and the firm's performance suggests that the actual residual stake held by the manager is more than proportional to his nominal stake (for a survey and synthesis, see Rosen (1992)).

in a world of incomplete contracts, only state-contingent control can best generate (partial) manager/claim-holder congruence. In particular, Dewatripont and Tirole (1994) argue that (1) because of contractual incompleteness, monetary incentive schemes based on firm profitability are not sufficient to discipline managers, and endowing outsiders with control rights is desirable because they can take actions managers like (dislike) after good (bad) firm performance; (2) the firm's outsiders must be given incentive schemes in the form of securities to intervene appropriately in the firm; (3) the firm's managers should be rewarded by low interference by outsiders when performing well, and be punished by substantial outside involvement when performing poorly; and therefore, (4) under some conditions, control should be given to equity-holders when the firm does well and to debtholders in harsher times because the equity-holders are more passive than the debtholders in intervening in the firm.<sup>13</sup>

Fifth, in order to mitigate the free-rider problem of investors, concentration of ownership with large investors is preferred (Shleifer and Vishny 1997). When control rights are concentrated in the hands of a small number of investors with a collectively large cash flow stake, concerted actions by investors are much easier than when control rights, such as votes, are split among many of them. There are several distinct forms that concentration can take, including large shareholders, takeovers, and large creditors. A substantial minority shareholder has the incentive to collect information and monitor the management, therefore avoiding the free rider problem. He also has enough voting control to put pressure on the management in some cases, or even to oust the management through a proxy fight or a takeover (Shleifer and Vishny, 1986). Large shareholders thus address the agency problem in that they both have a general interest in maximization, and enough control over the assets of the firm to have their interests respected. Similarly, by combining substantial cash flow rights with the ability to interfere in the major decision of the firm, large creditors can also more effectively discipline the management through their contingent control rights than small creditors.<sup>14,15</sup>

<sup>13</sup> The Dewatripont-Tirole model uses the well-known facts that the debt-holder's welfare is a concave function of the firm's profit and the equity-holders' welfare is a convex function of the firm's profit. The part in control of the firm, then, uses a non-verifiable, i.e., non-contractible, signal as the basis for deciding whether to allow the firm to continue or stop. The manager prefers to continue rather than stop, since he enjoys the private benefit from continuation. When continuing, the firm's profit distribution is more "risky" (in the sense of second-order stochastic dominance) than when stopping. For this reason, the "risk-averse" debtholders will dismiss the manager more often than the "risk-preferring" equity-holders.

<sup>14</sup> However, unlike equity, debt in a peculiar way may be tougher when it is not concentrated. If a borrower defaults on debt held by a large number of creditor, renegotiating with these creditors may be extremely difficult, and the borrower might be forced into liquidation (Gertner and Scharfstein, 1991; Dewatripont and Maskin, 1995; Bolton and Scharfstein, 1996.)

### 1.C. Capital Structure and Bankruptcy Mechanism

Both in theory and in practice, capital structure is one of the most important aspects of corporate governance. Efficiency and effectiveness of a corporate governance system much rely on capital structure. This is because shareholders and debtholders differ in both control rights and cash flows. They are "state-contingent owners" of the firm in different states. When the firm is solvent, shareholders are owners: claim residual and control management; and debtholders are only contractual return claimants. However, when the firm is insolvent, debtholders take over control of the firm from shareholders. Because the switching point of control is determined by capital structure, and shareholders and debtholders exercise their respective control rights differently, capital structure has important implications for managerial behavior. The optimal capital structure is one which can most effectively solve both the managerial incentive problem and the management selection problem.

It is widely recognized that the board-of-director-control ("voting-with-hands") and the stock market ("voting-with-feet") are two major mechanisms through which shareholders exercise their control rights to deal with managerial agency problems. They are complementary but also substitutable. On the one hand, the decision for replacing the incumbent by "voting-with-hands" is generally based on the score from "voting-with-feet". On the other hand, an efficient stock market surely makes direct control less important. This is analogous to frequent patrol by the police making the prisons less crowded! In reality, which mechanism is more important depends on the level of development of stock markets as well as the concentration of shareholding. For instance, in the United States and Britain where stock markets are well developed and ownership is very diversified, take-over through stock markets plays a more active role than in Germany and Japan where stock markets are less developed and ownership is more concentrated (Berglof, 1990).

While shareholders have the ultimate control over the manager when the firm is solvent, the control rights shift to debtholders when the firm becomes insolvent. The rationale for this shift is that in the latter case debtholders become de fact residual claimants and thus are better motivated to make adequate decisions. In general, debtholders' control is harsher for the manager than shareholder's control, because the incumbent is more likely to lose his job in the case of debtholder's control than in the case of shareholders' control. For this reason, debt can serve

<sup>15</sup> Costs of concentrated ownership are potential expropriation by large investors of other investors and stakeholder in the firm. For this reason, as argued by Shleifer and Vishny (1997), a good corporate governance system should combine some type of large investors with legal protection of both their rights and those of small investors.



better to discipline the manager (Grossman and Hart 1982).

Because of the collective action problem of debtholders, debtholders' control is usually conducted and governed through a law-provided bankruptcy procedure (Jackson, 1986; Hart, 1995). Most bankruptcy laws in developed economies offer two options for debtholders' control of the insolvent firm, i.e., liquidation or reorganization. Liquidation means, in most cases, that the firm is dissolved, and assets are sold piecemeal; some times, however, the firm is sold as a going concern. Whichever occurs, the proceeds of the sale are divided between debtholders according to absolute priority rules determined by law (usually secured debt, then various priority claims, then unsecured debts, then subordinate debts, and finally equity), and the incumbent manager loses his job. Reorganization is a process through which the claimholders negotiate on whether and how to restructure the debtor firm's liabilities and assets, possibly with the objective of maintaining the company as a going concern. Restructuring of liabilities typically entails the exchange of debt for equity, extension of maturity, reductions in principal and interest, and injecting new capital. Asset restructuring may involve divesting unproductive units, eliminating unprofitable product lines, introducing new managerial practice, changing marketing orientations, and adopting more appropriate production technologies. Reorganization of the insolvent firm may also involve replacing the management team. But in general the probability that the incumbent keeps his job is higher in the case of reorganization than in the case of liquidation. For this reason, liquidation is harsher for the manager than reorganization. The Choice of liquidation and reorganization often depends on the concentration of debtholders because of the transaction cost problem. If debts are more concentrated in the hands of a fewer large debtholders (such as banks), reorganization is more likely to occur; otherwise, liquidation is more likely to occur. Bankruptcy can result either from the manager's incompetence, or managerial slack, or some exogenous shock beyond the manager's control. No matter which reason it is, in many cases, the firm is worth more as a going concern after reorganization than if it is sold piecemeal. Thus, ex post efficiency might call for the incumbent management of a bankrupt company to be retained. However, anticipating this, management might have little incentive to avoid bankruptcy, and an incompetent manager might not be replaced punctually, given that the exact reason for bankruptcy is not easy to identify. The optimal bankruptcy procedure must balance between realizing ex post efficiency and ex ante disciplining management (Hart, 1995). Although our discussion of the creditor's control has focused on the bankruptcy state, debt financing can mitigate the managerial agency problem in various other ways. For instance, debts force the manager to pay out funds to investors rather than to himself, force the sale of unproductive assets and limit the manager's ability to

make unprofitable, but power-enhancing, investments (Jensen, 1986; Hart, 1995). By triggering the investigation when debtors default on debt payments or when the firm needs refinancing overdue debts, debt contracts help to reveal information of the firm so that the manager can be better monitored and disciplined by investors (Harris and Raviv, 1990).

It should be pointed out that the capital market and bankruptcy are not only mechanisms to discipline management but also mechanisms to constrain capitalists' behavior. For instance, transferability of shares ensures that the capitalist can easily correct his mistakes in judging the manager's ability, while inability to withdraw real capital can protect the high ability manager from unfair harm by an individual shareholder's mis-blame; the market valuation of stocks does not only value the performance of the manager, but also values the performance of the shareholders. The replacement of management is often preceded by the replacement of the shareholders; the shareholders are harmed before the manager. Similarly, debt contracts, on the one hand, restrain the debtholders from intervening in management in good time, and, on the other hand, punish the debtholders for lending to the wrong people (entrepreneurs or managers) and financing the wrong projects. After all, it is capitalists who take responsibility for selecting and disciplining managers. If they do not pay for their careless mistakes, who will?

#### **1.D. Summary**

In this section, I present an analytical framework of what corporate governance does in a capitalist firm. I argue that corporate governance is a mechanism assumed to address both the managerial incentive problem and the management selection problem through the allocation of residual claim and control rights. In particular, capitalists' control is crucial for selecting the most entrepreneurial people for managerial position, and for motivating and disciplining managers since, as "natural" risk-bearers, only they have adequate incentives to select good managers, replace bad managers and monitor managerial performance (either as shareholders or as debtholders). Given that the existing literature almost exclusively focuses on the managerial incentive problem, and the role of capitalists in disciplining management, I emphasize that the management selection problem and the function played by capitalists in selecting high ability management might be more important for efficient corporate governance of the firm. After all, everyone can be motivated to work hard by proper incentive schemes, but only a small fraction of the population is qualified for entrepreneurship and management. From the point of view of resource allocation efficiency, a hard-working but less competent manager is definitely worse than a highly competent but more discretionary manager. In the next section, we apply this framework to analyze state-owned enterprise reform in China.

## 2. Evaluation of the State-owned Enterprise Reform in China

### 2.A. Introduction: The Most Serious Agency Problems of SOEs Are on the Side of Governmental Bureaucrats

The most distinct feature of state-owned enterprises (SOEs) from capitalist firms is that, by definition, the role of principals in state-owned enterprises is played by the "state" (government) rather than by natural capitalists: it is the government who appoints, motivates and disciplines managers, and finances firms' projects. This has substantial implications for corporate governance of the enterprises. First, it implies that the investor of the firm is completely an outsider, and there exists no inside ownership at all. Because the owner is far away from the management team, and the manager has no stake in the firm, the agency problem of SOEs on the management side is potentially far more serious than of any capitalist firm where the CEO normally holds a considerable stake and is therefore an inside owner. Second, because the state (or government) is a pseudo-player rather than physical entity, principalship of the state has to be delegated to and exercised by governmental bureaucrats through a hierarchical structure (Zhang, 1993).<sup>16</sup> Bureaucrats hold the de facto, extremely concentrated, control rights of the firm under name of the state, but they are not residual claimants (at least in a legal sense) because the residual belongs to the state; that is, control rights are separated from residual claim in the first place. Moreover, these bureaucrats typically have goals that are different from social welfare, and are dictated by their own political and economic interests. This creates another agency problem, i.e., how to motivate and monitor bureaucrats in order for them to behave like capitalists in selecting, disciplining and motivating management? In any realistic sense, this second agency problem is far more serious than the first one.<sup>17</sup> For this reason, many Chinese economists have come to a conclusion that the problem of SOEs is mainly that of the principal rather than that of agents (Zhang Weiying, 1995; Fan, Gang, 1995; Zhang, Chenyao, 1995; Zhang, Chunlin, 1995, 1997). During the pre-reform period (before 1979), both the residual claim and control rights of SOEs in China were almost completely held by the governments (in most cases at the central and provincial levels). The whole economy of the state sector was organized like a single giant company with almost all decisions of production, investments and employment centrally planned (Wu, 1994). Revenue and cost Budget were also centralized by the state treasurer. The so-called "enterprise" was nothing but a production plant. The enterprise had a

director but no "manager", in the sense of business decisions; the director (normally acted by the party secretary) was nothing more than a special worker, whose main task was to coordinate and supervise ordinary workers to implement the production plan made by the government, rather than marketing. All inside members of the enterprise were compensated through a centrally set hierarchical wage-fringe benefit system, which was little related to firm performance. If there was anyone who had incentives to make the economy better, it was the central government leaders and top bureaucrats, because they were virtually the partial residual claimants (both politically and economically, and legally and illegally) (Zhang, 1993).

The benefit of central planning was that the agency problem of managerial theft and expropriation of funds at the firm level was tightly restricted since management had little freedom to make discretionary decisions. However, the cost was the losses of resource allocation efficiency, and of managerial incentives to improve production efficiency and technology efficiency, and also a serious agency problem of bureaucrats.<sup>18</sup> The Chinese SOE reform first introduced in 1979 can be characterized with a continuously evolutionary process of shifting decision rights and residual claim from the government to the firm level. The reform started with no intention to abolish state ownership. Rather, it was intended to improve efficiency within state ownership. Nevertheless, reform has been directed by a doctrine which is potentially conflicting with the conventional doctrine of state ownership. I call this new doctrine "the reform doctrine", according to which, both the decision rights and the residual claim should be shifted to the inside members of the firm (i.e., the manager and workers). The argument for shifting the decision rights to the manager of the firm is based on the assumption that decisions made at the firm level are more efficient than at the central agent level because of the information/communication problem.

<sup>18</sup> Bureaucrats enjoy considerable freedom to expropriate public funds through various ways. One such way was to make investment in their hometown. This can be sharpened by the following example. Suppose there is the total fund of 100 millions and there is a railway to be constructed, which costs 90 millions and generates 99 millions benefit for the public if it does not pass the bureaucrat's hometown, or costs 100 millions and generates 95 million benefit for the public plus 5 million private benefit for the bureaucrat if it passes his hometown. If the bureaucrat can pocket his rent of 10 millions, his best choice is to donate it to his hometown for building a school, which generates him 11 millions benefit; the remaining 90 millions can only be used to construct the railway not passing his hometown; and the net return rate of the total investment is 10%. However, because it is impossible for the bureaucrat to pocket the rent, his second best choice is to invest all 100 millions in constructing a railway passing his hometown, which has the net rate of the return is 0%. This misallocation is possible because it is impossible for the public to understand what is the optimal routine or it is too costly for them to stop the decision --5 millions net surplus might be the maximum they could get from monitoring; on the other hand, the investment generates 5 millions for him, which is better than nothing, it pays for the bureaucrat to hire some experts to prove that the detour is the best for the public's interest.

<sup>16</sup> Theoretically, it is "all people" who are the principal (owner) of the firm, and the state is only a representative of all people. But in this paper, I will go to discuss the relationship between the original owner and the state. See Zhang (1993).

<sup>17</sup> In a capitalist firm, the monitor is monitored by residual claim (Alchian, 1972). This cannot be a case in the state enterprise.

The theoretical legitimacy of this assumption dates back to Hayek, while Chinese economists mainly base their argument on the observed poor performance of the traditional centralized planning system. The argument for shifting the residual claim to inside members of the firm is based on incentive considerations. Although the modern theory of incentives was introduced into China much later, the pre-reform Chinese experience seems sufficient for both Chinese economists and reform-minded leaders to understand how essential the incentive system is for economic performance, although it has come much later for them to understand that the incentive system is primarily dependent on property rights and ownership structure. The reform doctrine can be summarized by a popular official slogan that "the goal of the reform is to make the firm independent, autonomous, and responsible for the profits and losses". If this doctrine were fully implemented, state ownership would no longer exist in any economic sense; the government would be left nothing more than a bondholder. However, for a long time, this inconsistency between the reform doctrine and state ownership has not been well recognized by economists and practitioners. As a result, they are puzzled by the fact that, on the one hand, bureaucrats still enjoy considerable administrative intervention in the firm even after more than decade reform, and on the other hand, the economy suffers from managerial insider control (Wu, 1995). In practice, shifting decision rights and residual claim has been conducted through various policies. In the early stage of reform, the basic policy was "fangquan rangli" (granting autonomy and sharing profit). From 1986 to the early 1990s, the dominant policy was the management contract system. From 1994, the state-dominated corporatization of SOEs was officially adopted as a substitute for the management contract system. In the remaining part of this section, I will first analyze the effect of the management contract system (analysis applies to the policy of "fangquan rangli"), and then give a personal view of corporatization policy. Finally, I will discuss why changes in the financial structure of SOEs and bankruptcy have failed to play a role in disciplining managers. As pointed out in the introduction of the paper, from corporate governance perspective, my basic argument is that: China's SOE reform is relatively successful in terms of solving the short-term incentive problem, but it has failed to solve the long-term managerial incentive problem and the management selection problem. These two problems cannot be solved without a fundamental change of ownership.

## **2.B. How Has Management Contract System Improved the Short-Term Managerial Incentive?**

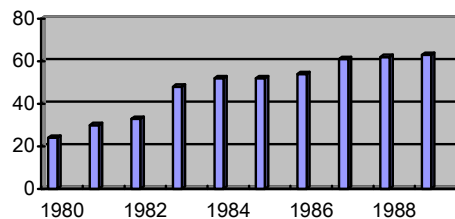
The management contract system (MCS) evolved from, and was seen as a remedy to, the early loosely defined administrative policy of "fangquan rangli" since, as often claimed, "fangquan rangli" granted

managers autonomy but failed to bond them with responsibility. It is not easy to identify where and when the first contract came into existence. What we know is that the MCS was initiated by local governments, and spread nation-wide after 1987 following the State Council's "Decisions on Deepening Enterprise Reform and Invigorating Enterprises" announced in December 1986. By 1989, a large majority of SOEs had adopted the MCS.<sup>19</sup>

The MCS has various names in China, such as the profit (or loss) contracts, factory management responsibility system, the asset responsibility system, and leasing contracts. The basic content of the MCS was to set profit sharing rules and delimit decision rights through contracts negotiated by the firm and the group of governmental agencies (normally including line department, and financial department; sometimes contracts are signed directly between management and mayors). The contract normally lasted for 3 to 4 years. The details of contracts varied across enterprises, regions and industrial sectors. The following are commonly identified as typical contract form: (1) the increasing profit remittance contract (shangjiao lirun dizheng baogan) (base profit remittance plus a pre-set annual increasing rate); (2) the fixed profit remittance contract (shangjiao lirun dingde baogan) (the firm retains all extra profit after fulfilling the fixed remittance target); (3) the base profit remittance with above-target profit sharing (shangjiao lirun jishu baogan, chaoe fencheng); (4) the loss reduction (or fixed subsidy) contract for loss makers (kuishun qiyi jiankui/butie baogan); (5) the enterprise management responsibility contract (qiyi jingying zerenzhi) (normally setting total profit target and profit growth rate); (6) the asset responsibility contract (zhichan jingying zerenzhi) (main targets are asset preservation and enhancing); (7) the profit and tax guarantee contract (with total wage linked to the realized profit and tax) (liangbao yigua zhonghe chengbao). Typically all contracts contain indicators of profit and tax target, utilization of retained profits, debt repayments, asset appreciation, product and technology innovation, product quality improvement, and enterprise rating. In some cases, contracts also include output target, product cost target, and even fulfillment of the state plan. However, in most cases, only profit target are weakly enforceable, and other terms can only be taken as references. It also should be pointed out in many cases the contracts differ only name rather than content.<sup>20</sup>

<sup>19</sup> One survey shows that even by the end of 1987, 78% of all SOEs with independent accounting systems and 80% of large and middle sized SOEs adopted the MCS (Liu, 1995).

<sup>20</sup> For details of contracts and case studies, see China Enterprise System Reform Research Group (1988).



**Figure 1.** Ex Ante Profit Retention (1980-1989)

Source: Groves et al (1994)

From the above description, we see that the MCS mainly deals with residual sharing. Under the MCS, the firm obtains considerable residual share of current profits. According to a survey conducted by the Institute of Economics of China Academy of Social Science, marginal profit retention rates steadily increased over the 1980s, rising from a mean (across firms) of 24 percent in 1980 to a mean of 63 percent in 1989 (Groves, et al, 1984; see Figure I).<sup>21</sup> However, it should be pointed out that only a tiny fraction of the retained profit legally accrues to management team.

From the point of view of decision rights, the MCS has an enabling feature in the sense that management's autonomy is restricted by government intervention mainly from other sources rather than from the contract per se. Although suffering from considerable administrative interventions, through the MCS, together with other reform policies such as price liberalization and output plan reduction, managers have gradually obtained considerable decision rights.

Table 1 presents details of the realization of managerial decision rights.<sup>22</sup> From the incentive point of view, although suffering from the re-negotiation problem and the ratchet effect, the MCS does provide relatively strong incentives for management to make short-term profits. As I argued in early papers (Zhang, 1995, 1997), under the management contract system there are two kinds of incentives working for management. One is formal and explicit, and the other is informal and implicit. The formal and explicit incentive comes from the fact that managers (and worker) can legally claim part of the residual according to the signed contract. Granting autonomy of business decisions makes the manager become a natural holder of part of control rights. By granting the partial residual to him, the residual claim and control right can be better matched at the firm level. This better matching certainly gives better motivation for the manager to make profits (Groves, et al, 1994;

Xiao, 1997). However, given that ownership is absent and the manager has little stake in the firm, managerial autonomy has also generated various agency-type problems, including profit diversion and asset stripping. These agency problems are often referred to as "insider control" problems (Wu, 1995). This is partly because the government has inadequate information for monitoring the firm, but more importantly, because the concerned bureaucrats have no correct incentive to do so. In many cases, managers collude with bureaucrats in cheating the state.

Nevertheless, in contrast to the conventional wisdom that managerial discretion is harmful for firm performance, I argue that, in the state-owned enterprises--at least in Chinese state-owned enterprises, insider control might do more good than harm. Given that there is no natural owner to motivate the manager, and that the residual that managers can legally claim is tiny,<sup>23</sup> how can those most important but least monitorable people be motivated to work harder? It is the illegal expropriation of profits that motivates them to work harder. In other words, given the ex ante inefficient ownership structure, the insider control can be an ex post efficient remedy. It can be a Pareto-improvement because, unlike in a capitalist firm, nobody is made worse off but management becomes better off. This is why I call it the "informal and implicit incentive".<sup>24</sup> The informal and implicit incentive exists because, by manipulating account ("hiding profit") and stripping assets, managers can illegally but safely claim more virtual residual than specified in the contract. Hiding profits and stripping assets are possible since, as management possess more autonomy of decision making, it is very hard for the state to have judicial and administrative checks on their behavior. Although managers can not freely pocket the money, they have many ways to spend money.

<sup>21</sup> However, as pointed out by Groves, et al., the average numbers conceal considerable variation across enterprises in marginal profit retention rates. While some enterprises were retaining 100 percent of their marginal profits by 1989, others were still remitting all their profits to the state.

<sup>22</sup> The SOE Law (1988) identifies 14 right to define the SOE sphere of autonomy.

<sup>23</sup> According to the survey by China Entrepreneur Survey System, the average monthly income of management is 1024 yuan in 1995, just 2.2 times of the average of urban workers. See *Almanac of China's Economy* 1996, p.955.

<sup>24</sup> This idea is similar to one in which corruption and bribes can improve efficiency given that the government controls firms (Shleifer and Vishny, 1994).

Pervasive phenomena of drinking foreign wines, feasting, karaoke, prostitution, and gambling that we see among managers are all reflections of a de facto claim to the residual. Typical forms of hiding profits and stripping assets include setting up independent or so-called subsidiary companies with little government control, making investment in and transferring profit through sale or purchasing prices to these companies, putting all perks into costs calculations, diverting profits to private or quasi-private accounts (xiao jinku), inviting relatives and friends for banquet and

holidays, purchasing luxury cars, and so on. All these might be called implicit privatization. As a result, the correlation between personal benefit and total "real" profit is much stronger than official statistics show and the formal contract allows. Casual observation suggest that managers of better performing firms have a much luxurious life than those of poor performers. This strong correlation has greatly improved managerial incentive to make profits, although it has negative effects as well.

**Table 1.** Realization of Enterprise Autonomy (%)

Decision Rights	1993	1994	1995
Production decision	88.7	94.0	97.3
Pricing decision	75.9	73.6	85.4
Sale decision	88.5	90.5	95.9
Purchase decision	90.9	95.0	97.8
Export/import	15.3	25.8	41.3
Investment decision	38.9	61.2	72.8
Use of retained funds	63.7	73.8	88.3
Disposing asset	29.4	46.6	68.2
Joint and merging with others	23.3	39.7	59.7
Hiring and firing labour	43.5	61.0	74.8
Personnel decision	53.7	73.3	74.8
Wage and bonuses	70.2	86.0	93.1
Internal organization design	79.3	90.5	94.4
Refusal of proration	7.0	10.3	17.4

Source: Survey results of 2752 managers by China Entrepreneur Survey System, quoted from Almanac of China's Economy 1996. Note that the sample consists of 72.9% SOEs, 12.8% collective enterprises, 7.4% joint ventures and 6.9% other enterprises (including private). Therefore the indicators overestimate the realization of autonomy for SOEs.

I bet that without implicit privatization, Chinese SOEs on the whole would have performed much worse. "Telling good news" was a dominant strategy in pre-reform China. But now the fashion has changed. Today China's SOEs have strong incentives to tell "bad news". Although there are some loss-makers which still overreport, most state enterprises underreport profits, because reported profits belong to the state, whereas hidden profits accrue to management.<sup>27</sup> This can partially explain why the statistically reported profit index of the SOEs is so discouraging. It suggests that the actual financial situation of SOEs is much better than statistics shows. If this was not the case, one could hardly understand why both goods and service markets are so bullish in China. Using accounting profits to judge performance of Chinese SOEs is very misleading. After all, when the firm manager can manipulate accounting statements, accounting profits are nothing more than a book number. Apart from underreporting profits, there are another three reasons for profits falling. The first is competition between the non-state and the state sectors as well as among the SOEs, which has

destroyed monopoly profit (Naughton, 1995, and Rawski, 1994). In this sense, the fall in profit is good news since it signals more efficient allocation of resources. The second is the change in financial structure. The debt/asset ratio of the whole industrial SOEs was raised from 18.7% in 1980 to about 67.9% in 1994 (Wu Xiaolin 1997). This change converted the previous profits into financial costs. The third reason is "profit-tax conversion", which also converted profits into costs (taxes). Therefore profits are a very misleading indicator for SOE's performance.

The above theoretical predictions are consistent with recent empirical studies. For instance, Hayashi and Wada (1997) find that, in a sample of 796 SOEs from 1991 to 1995, the ratio of production cost/sale changed little, but both administrative costs and financial costs increased by large amount. This suggest that profits of SOEs are mainly eroded by the administrative costs and financial costs. I conjecture that much of the increase in administrative costs comes from management's expropriation of real profits.<sup>28</sup>

However, although the reform has improved the management's incentive to make current profits, the long-term incentive problem has yet to be solved. Casual observation suggest that managers of SOEs

<sup>27</sup> The author collected many examples of underreporting stories. In one case, the manager of a SOE in Shenzhen told me that the company make 1.04 billion profit in 1994, but it reported 600 millions to the government. In another case, a state export/important company made more than one billion profit, but it reported a loss of 4 millions.

<sup>28</sup> The social security payment is also an important factor for increase in administrative costs.

prefer to distribute retained profits to employees or make investment in quick revenue-generating projects rather than to make investment in long term productivity-enhancing projects and R&D (Huang, Woo, Kalirajan and Duncan, 1998). In many cases, abnormal short-term profits are made at the large expense of long-term productivity (Broadman and Xiao, 1997). Asset stripping is also harmful for long-term growth. The problem becomes particularly serious as managers approach retiring age.<sup>29</sup>

The reason for management myopia is that, given that there is no personal capital stake, the manager's enjoyment of benefits from the firm cannot extend beyond his firm tenure. He is very uncertain whether he will still be in the position even next year.<sup>30</sup> This is because his firm tenure is mainly dependent upon bureaucratic preferences which are little related to firm performance. This leads us to the management selection problem. Although I argue that the reform has greatly improved the short-term managerial incentive mechanism, there is a fundamental problem which has not been solved for Chinese SOEs; that is, selection of high ability managers. The reason is that SOE managers are appointed by government bureaucrats rather than capitalists.<sup>31</sup> This has important implications. First, because of the adverse selection problem, selecting good management is hard work. It requires that selectors must have adequate incentives to find information about candidates' abilities and to install high quality candidates. Adverse selection is most serious in China, because, with no personal stake to signal ability, too many people pretend that they are qualified for management. But worse is that bureaucrats, unlike capitalists, have the right to select, but do not bear consequences of their selections. This implies that, not only would-be managers, bureaucrats themselves also have the adverse selection problem. They have no adequate incentive to search for good managers, and even if they know some are capable, they still lack the adequate incentive to install them. Observation suggests that bureaucrats too often base their selections on personal connections (*guanxi*) rather than merits. Appointing friendly managers is the most effective way for bureaucrats' rent seeking.<sup>32</sup>

Second, in contrast with the capitalist firm where the manager tries to become a capitalist, SOE managers too often try to be promoted to bureaucrats.

This is because as long as managers are appointed by bureaucrats, the latter are always in the superior position to the former, and promotion to a bureaucrat is the best reward for managers. As a result, SOE managers behave more like professional bureaucrats than professional managers. For managers, the firm is nothing other than a plate for them to jump to bureaucrats. This induces managers to care only for short-term and easy-measured performance, and it also explains why many "excellent" firms fell down once their managers are promoted to government.

Third, with bureaucrats making selection of management, good performers are just as equally likely to be removed as bad performers, if not more. This is because once a firm becomes highly profitable, bureaucrats have every incentive to collect rents by replacing the incumbent with their favorite. Thus, the best way for the incumbent to secure his position is to make the firm not too good and not too bad.<sup>33</sup>

Empirical investigations give strong support for the above theoretical arguments. A survey by China Entrepreneur Survey System shows that 67.3 percent of the managers pay their "first concern" to their bureaucratic superiors' evaluations (Beijing Youth Daily, 11 March 1998). From 1987 on, China Entrepreneurs Association has conducted a nationwide "Excellent Entrepreneurs (managers) Assessment", and every year there are 20 SOE managers selected as Golden Ball Prize Winners. According to China Entrepreneur Magazine, by the end of 1997, only 4 of the first 20 winners were still in the position of original enterprises. Among the other 16, 3 had been promoted to government, 5 had retired for normal aging, 4 had been dismissed, 1 escaped to Philippines after diverting assets, and 1 died from illness. The total of 159 winners (up to 1995) followed a roughly similar pattern. Those still in the position are very worried about their future (China Entrepreneur 1997 No.9). This phenomenon of "good managers are short-lived" has attracted much attention among academics and managers.<sup>34</sup> I do not deny that the quality of SOE managers has made some progress compared to the pre-reform period. From the early 1980s, the government tried to strengthen managerial

<sup>29</sup> Chinese retiring age is 60 for men and 55 for women. Chinese courts find that economic criminals of 59 year-old managers are disproportionately high. This is called "59 phenomenon".

<sup>30</sup> Although the contract lasts 3 to 4 years, the government is not bound by the contract in replacing the manager.

<sup>31</sup> Some source says that over 80 percent of the managers are appointed by industrial bureaus (Groves, et al 1995). In fact, 100 percent are appointed by industrial bureaus.

<sup>32</sup> It should be pointed out that bureaucrats are multi-task principals (Holmstrom and Milgrom, 1991; Dixit, 1997). Even if they are "benevolent", they still need to balance between different tasks. It is hard to imagine that they consider only the manager's ability of enhancing profitability in their selections.

<sup>33</sup> For example, a SOE manager of Wuxi City in Jiangsu Province increased the firm's assets from 2 million to 700 million within a few years. Then he was called into the government line department office and told that because he had no university degree, he was not qualified for running such a big firm. He was then replaced and got a new position in a much smaller firm.

<sup>34</sup> The survey by the Institute of Economics of China Academy of Social Science consisting of a sample of 769 SOEs over the years 1980-1989 shows that only 11 percent of managers serving at the end of the period had been appointed before 1980, and 44 percent had been appointed since 1985. Among the current managers, less than a quarter (23 percent) replaced retiring managers. For the remaining group, 38 percent replaced managers who were promoted, 46 percent replaced ones who were moved laterally, and 16 percent replaced ones who were demoted. This data was misinterpreted by Groves et al (1995) as an indicator for development of managerial labour markets in China. In fact, in China, SOE managers are frequently reappointed every 3 or 4 years. Turnover of managers has little to do with managerial labour markets.

quality by setting some "hard criteria", such as education level and ages, for management qualification.<sup>35</sup> As a result, for instance, the average education level of SOE managers has increased.<sup>36</sup> In addition, competition has also made the managers more market-oriented in making their production decisions. However, as we all know, managerial capability is far beyond being measured by any hard indicators, let alone that, in China, even hard indicators can be manipulated.<sup>37</sup> It is most important to provide selectors with good incentives to find good managers case by case; otherwise, even the hard criteria can be mis-used for excluding good managers (as in the example cited in footnote 33).

### 2.C. Can the State-Dominated Corporatization Solve the Management Selection Problem?

The MCS-dominated reform has revealed that SOEs are confronted with a fundamental dilemma. On the one hand, when the government controls the enterprises, managers have no incentive and little autonomy to make efficient decisions, and on the other hand, when the government loses its control, the insider control generates enormous agency problems. This dilemma makes it impossible to separate governments from enterprise business in any practical sense. Even worse is that, with this dilemma, bureaucrats enjoy considerable administrative freedom to intervene in the management for their own interests rather than the state's interest. The state sector has evolved into one characterized with insider control under administrative intervention (C. Zhang, 1995)

Having recognized that this fundamental dilemma could not be solved by MCS in a traditional way, some economists proposed "state share-holding system" as an alternative as early as 1984, based on the assumption that the dilemma is rooted in the integration of the owner-government with the regulator-government, and therefore as long as the owner-government is separated from the regulator-government, so that the owner-government plays only the role of stock-holder, all the problems can be solved.<sup>38</sup> The basic framework of the state share-holding system can be described as the following multitiered network structure. On the top, a national state asset management committee (NSAMC) is established by the People's Congress or the State

Council; the NSAMC is delegated by the state as the owner of all SOEs. Below NSAMC, a number of state asset holding companies (SAHC) are set up as acting stock-holders, each of which holds the stocks of the SOEs and appoints board members and supervisors to these SOEs. Then the stocks of SOEs can be traded in stock markets. Within this multitiered structure, SOEs become legal entities with full managerial autonomy over business decisions and corporate assets, and the SAHC can discipline the managers through both "voting-with-hands" and "voting with feet", just like in a Western-type market economy. In practice, in the past few years, many local governments, including Shanghai, Shenzhen, and Beijing, have established such a multitiered network within their jurisdictions. In all these examples, SAHC were typically formed either from transforming the original line departments, or from upgrading the giant SOEs. In a few cases, SAHC are completely newly organized entities.<sup>39</sup> Figure 2 describes Shanghai's multitiered structure of state asset management system.

#### (Insert Figure 2)

Although a systematic implementation of the state share-holding system described above has been delayed at the national level (and may not come forever), the state-dominated corporatization of individual SOEs has been wide-spread. The experiment began as early as in 1984. By the end of 1991, there were about 3220 so-called "joint stock experiment companies" (cited from Wu, 1994, p.223). In 1991, two local stock exchanges were established in Shanghai and Shenzhen, both of which were later endorsed by the central governments and have now become national stock exchanges. In 1993, the Company Law was enacted, and then the "modern enterprise system" was officially adopted by the Chinese Communist Party Congress as the organization mode of SOEs. In 1995, the State Council selected 100 large SOEs for corporatization experiments. As of 1996, approximately 5,800 industrial SOEs had been corporatized, some of which are listed in the stock exchanges (World Bank, 1997).<sup>40</sup> Can the state share-holding system solve the problems of SOEs as assumed? My answer is NO. My overall criticism of such a way of thinking is that you cannot make a zebra from a horse simply by brushing white stripes on its back. First, the state share-holding system cannot solve the management selection problem. The reason is that the officers of NSAMC and SAHC are still bureaucrats rather than capitalists. No matter what you call them, shareholders or managing directors, bureaucrats are bureaucrats, and

<sup>35</sup> More recently the government launched an MBA program for managers of large and middle SOEs.

<sup>36</sup> In 1995, 79.6 percent of managers has the college and university degree, compared to 33.4 percent in 1985. See *Almanac of China's Economy*, 1996, p.955.

<sup>37</sup> Many managers and government officials have obtained their university certificates through cash pay or by using their administrative privilege.

<sup>38</sup> To my knowledge, Wu and Jin (1985) were the first to make the proposal of the state share-holding system. A similar idea were also proposed by the World bank China Mission. Professor Li Yinin Peking University has been famous for his shareholding-dominated reform proposal (see Li, 1986).

<sup>39</sup> In Shenzhen, two of the three SAHC were formed from upgrading the giant companies, and one was newly established. In Shanghai and Beijing, most of NAHC were transformed from the original line departments.

<sup>40</sup> By the end of 1997, the total number of listed companies reached 745, most of which are the incorporated SOEs, with a total market capitalization of US\$222.4 billion (*Security Market Herald* No.1, 1998).

you cannot turn them into capitalists simply by renaming. They have rights to select boards of directors and managers of SOEs, but bear no consequences of any risks from their selections. Therefore, voting rights in their hands are typical "cheap vote rights" (Harris and Raviv, 1988).<sup>41</sup> Because of this, they still have no good incentives to find and appoint good managers, and those lemons can still easily occupy the management positions by bribing officers of NSAMC and SAHC.

In reality, what we have seen is that, although the managers of corporatized SOEs (including those listed companies) are appointed formally by the board of directors, all the decisions of appointments are actually still made by the line governments and the Communist Party's personnel departments as before, let alone that all board members are from governments departments or other SOEs. As a result, there is little fundamental change in corporate governance.

Most Chinese economists agree that it is important to have a managerial labour market, but few realize that markets for managers are essentially capital markets. The key question is who purchasing the services of managers. If it is government officials who are the buyers, then managers have to please government officials, and professional managers will not emerge. Second, the state share-holding system still cannot separate the government from enterprises. As I pointed out earlier, the proposal of the state share-holding system is based on the assumption that the core of inseparation of the government and enterprises lies in the integration of the government as a regulator and the government as an asset owner. It is argued that as long as the government as a regulator is separated from the asset owner, let the State Assets Management Committee represents assets owners, and the State Council represents the government, the government will be separated from the enterprises accordingly. Such thinking is very naive. Any owner has to supervise management through control rights. The State as a (and in most cases the only) stockholder will naturally intervene. The key problem is how to determine the boundary of such intervention. The prevailing theory has a misconception, i.e., there seems to exist a very well-defined division of rights between stockholders, the board of directors, and management, and thus it is clear to everyone who should do what. This is definitely not true. Of course, part of the relationship among the three parties is well-defined, but much of it is not. There exists a public domain in control rights where it is the tacit understanding that determines who should move one step forward and who should move one step backward. For instance, according to the Company Law and the corporate charter, the share-holder

meeting has the power to make decisions on "important issues". But what constitutes an important issue is moot. Should we call an issue important when a sum of 10 million dollars or 5 million dollars is involved in a transaction? For a true stockholder or board member who bears the risk of transactions, his decision of whether to intervene depends on how much trust he places on the manager. If he trusts the manager, he will not intervene even if the manager is doing something that fundamentally alters the enterprise. If he does not trust the manager, even if the manager is doing something trivial, he may still intervene.

The problem is that the tacit understanding between a real stockholder and management in dealing with the public domain of control rights cannot be duplicated between a state stockholder and management of SOE. It is more likely something that would be important to a real stockholder is viewed by the state stockholder as trivial, while something that would be trivial to a real stockholder is viewed by the state stockholder as important. This is because the government official acting as a state stockholder does not bear the consequences of risks. The other possibility is that managers can bribe the state stockholders to make them totally give up their intervention. Thus, it is very likely that we will constantly shift between excessive administrative intervention and insider's control without reaching any real tacit agreement to solve the problem of separating the government from enterprises.

In reality, it seems that managers of corporatized SOEs have more complaints about bureaucratic intervention than before. Once the bureaucrats become legal "bosses", they have legitimate control rights to intervene in the firm. The managers frequently echo that *popo jia laoban* (the government-plus-boss) has made worse rather than better.<sup>42</sup>

Third, state share-holding cannot protect the state asset from being expropriated by the management. As a stockholder, the state is a legal residual claimant. However, it may not have effective way to collect residual. How much residual the state can collect depends not only upon the incentives for management to make profits but also upon the firm's financial statement. Because of the problems of hidden actions and hidden information, the state as a residual claimant has to monitor if it wants to obtain any residual. The effectiveness of monitoring is determined by two factors. One is information and the other is incentives. The modern theory of the firm has proven that monitoring by stockholders requires

<sup>41</sup> Here the "cheap vote rights" refers to the vote rights the holders of which bear no responsibility for voting results. For example, if the Chinese people were to select an American President, the vote rights that the Chinese hold are the cheap vote rights. Whoever becomes the American President does matter little to the Chinese citizens.

<sup>42</sup> In March 4, 1998, *China Security Daily* carried a report of a municipal government's circular on "target management of listed companies", which set up detailed rules of annual budget and resource allocation for 15 listed companies. The targets include investment budget, new issuance of shares and bonds, and asset restructuring. The circular rules that if the set targets cannot be fulfilled, the government will dismiss management. This shows that the 15 listed companies are tightly controlled by the municipal government.



information that is difficult and costly to obtain. The information collection is often dependent on incentives. How much information you obtain is determined to a large extent on how much incentive you have to collect it. Even dispersed shareholders of a capitalist company often lack adequate incentive to collect information. Given that officers of the state asset management committee and of state asset holding companies are only the agents of the state and not ultimate residual claimants, their incentives to collect information is very limited. Moreover, it is very tempting for them to collude with management in expropriating the state assets. Consequently, even if the actual profit is high, the state may not be able to collect it, just as has happened thus far. In sum, my argument is that the state share-holding system as currently proposed and practiced cannot solve the agency problems of SOEs both on the management side and the bureaucrat side. The state is not qualified to be a stockholder, and at most it can only serve as a debtholder who comes into control only when the enterprises are insolvent. Because the rights of debtholders are clearer, and violations or abuse of those rights are easier to verify in courts, management can be better protected from administrative interventions by bureaucrats on the one hand, and state assets can be better protected from expropriation by managers on the other hand. I believe only when the state is deprived of equity ownership of enterprises, can the problems be partly solved.<sup>43</sup>

## 2.D. Why Bankruptcy Has Not Played a Role in Disciplining Management

Chinese economic reform has made fundamental changes in the corporate finance of state enterprises. In the pre-reform period, SOEs were almost completely state-budget financed with few debts. Since the reform, debt finance has gradually taken over budget (equity) finance.<sup>44</sup> The average debt/asset ratio of all industrial SOEs has increased from 18.7% in 1980 to 67.9% in 1994.<sup>45</sup> The ratio is still rising. In particular, there are many "zero-equity firms". This high debt/asset ratio has mainly resulted from that, one the one hand, as the distribution of national income has changed, households have taken over the state as the major source of investment capital, and on the other hand, because direct financing markets are very tightly restricted and underdeveloped, the state banks

become the only channel of funds flowing from households to enterprises (Zhang, 1995b).<sup>46</sup>

As a result of debt-financing, many SOEs are at the brink of bankruptcy at any time. Although China enacted the Bankruptcy Law in 1986, which became effective in late 1988, although in early 1990s, filed bankruptcy cases were few in comparison with tens of thousands of financially distressed firms, since 1994, bankruptcy cases have dramatically increased, following the central government's initiation of an experiment of "capital structure optimization" and specific favored policies designed to enforce Bankruptcy Law.<sup>47</sup> From 1994 to 1996, a total of 6753 bankruptcy cases were filed (ICBC Bankruptcy Research Group 1997). In addition, there have been many out-of-court workouts.

Theoretically, when enterprises become insolvent, creditors will take over the control, and the threat of bankruptcy can discipline the management. Nevertheless, this is not a case in China. Rather, bankruptcy has been widely used by enterprises and local governments as a way to write off debts instead of disciplining managers (ICBC Bankruptcy Research Group 1997). After bankruptcy procedure--either through reorganization or through liquidation, most incumbent managers still run the firms as going concerns, and probably the only major difference is that considerable debts have been canceled (and in some cases the enterprises are renamed). Because of this, managers are more than willing to file for bankruptcy. In contrast, state-owned banks (SOBs) as dominant debtholders have been very passive in dealing with distressed firms. Typically, when debtor firms default on their debt, creditor banks passively accommodate by taking such actions as extending the payment period for loans and capitalizing unpaid interest rather than pursuing their claims through bankruptcy or other active means. Indeed, very few bankruptcies have been filed by banks.<sup>48</sup>

Why has bankruptcy not played a role in disciplining managers? There are several reasons.

The first is that the debt between state banks and state enterprises is not a real debt in a legal sense from its origin. In a legal sense, a debt is a contract between the debtor and the creditor. When the debtor borrows from the creditor, on the one hand, the debtor fully

<sup>43</sup> Of course, if the state is a dominant creditor, it may expropriate small equityholders and other creditors. Or it may be too soft for management. For a detailed discussion of transforming the state from a stockholder into a debtholder, see Zhang (1995a, 1995b).

<sup>44</sup> For more analysis of changes in corporate finance, see Zhang, Chunlin (1998, this volume).

<sup>45</sup> The debt/asset ratios in 1994 were respectively 75.7% and 74.2% for middle and small sized industrial SOEs. A survey by the State Assets Administration of 123,900 SOEs (including industrial, commercial and financial firms) estimates that the average debt/asset ratio in 1994 was 75.07%, or 83.3% if bad assets were excluded. All figures are cited from Wu Xiaolin (1997).

<sup>46</sup> According to Guo and Han (1991), households' share of national income increased from 64.4 percent in 1979 to 77.5 percent in 1988, while the total share of the government and enterprises decline from 35.6 percent to 22.5 percent. In the same period, the households' share of national saving rose from less than one fourth to nearly two thirds. Abnormal increase in household's income may partially reflect the fact of profit diversion.

<sup>47</sup> In 1994, the central government selected 18 municipalities for capital structure optimization experiment. The experiment expanded to 58 in 1996, and to 111 in 1997. The experimental cities are granted special favored policies for reducing debts of their SOEs. These policies are also applicable to some selected SOEs including 100 experimental SOEs of modern enterprise system.

<sup>48</sup> According to Asian Pacific Economic Time, 27 May 1997, only about 1.4 percent of bankruptcy cases in 1995-1996 were filed by banks.

understands that he has obligation to repay on due time, otherwise he will face a bankruptcy penalty; and on the other hand, the creditor fully realizes that there is some risk of default by the debtor. The terms of the contract are negotiated between the debtor and the creditor taking into account all these foreseen considerations. Bankruptcy is a procedure of enforcing the debt contract. However, in China, debts between the banks and the SOEs are very different. In the 1980s, when an SOE borrowed from a state bank, on the one hand, the SOE manager just took that as a new way to get funds from the government and he had little sense that the borrowed money would have to be repaid; and on the other hand, the bank just took that as allocating a loan to the state firm on behalf of the government, and it had little sense of risk of possible default. In fact, a large part of bank loans were decided by the government through an administrative procedure rather than negotiated between the firm and the bank. In this sense, "debts" of SOEs were more like equity than debts. The only difference between debts and budget funds was changes of items in the balance sheets. Not until 1990s, when debts had accumulated to a point where the state banks are burdened with enormous overdue bad debts, and when both SOEs and state-owned banks (SOBs) became relatively independent entities with their own interests, was it recognized that bank money does make a difference from the budget funds. For this reason, I call the SOEs' debts "the ex post debts".<sup>49</sup> Because of this ex post nature, bankruptcy of SOEs is more like a procedure of bargaining over the terms of new debt contracts rather than an enforcement of the existing debt contracts. The second reason, related to the first, is that in many cases the incumbent managers of SOEs are not the right persons to blame for default because much of the bad debt did not result from their decisions. Many SOEs are over-capital-intensive, and a large part of the firm's assets are non-performing. But investment decisions that were debt-financed were made by government bureaucrats, rather than managers. When debts are due, and investments have failed, the decision-makers are already gone or are in higher positions in the government. Even if investment decisions were right, bad debts have accumulated through several generations of managers, some of whom have either retired or moved to the government line departments, or even in banks. It is almost impossible to trace who should be responsible for what part of the problem. The incumbents have every reason for arguing that it is not their fault. Indeed, many incumbents attribute poor performance to bad debts, rather than other way. They argue that there are too many non-performing assets which are useless but bear interest; and if there were no such assets in the book, their firms would be profitable (Lu, 1996). There is no good reason to reject their argument. Rather, the argument has been widely

accepted by the government as guidance for policy making.

The third reason is that the managers of state-owned-banks care for only accounting numbers rather than the real value of the bank asset. This is because their careers and private benefits (like perks) all depend only on the accounting numbers rather than the real value of assets. They have every incentive to cover up rather than to signal non-performing claims. If non-performing debts show up, they may be replaced and bonuses may be reduced. In contrast, by engaging in accounting tricks to disguise non-performing debts, the bank can overstate its profits and may therefore maintain the ability to pay higher bonuses to employees and to continue a level of loan quotas that would no be possible at lower reported profit levels. Casual observation and empirical studies suggest that the managers of SOBs quite often record their bad loans as accounts receivable, roll over loans with new lending, and write their overdue interest payments as increases in the outstanding principal.<sup>50</sup> Although the incumbent bank manager may know that bad debts will eventually show up, the best for him is to let it happen in his successor's hands rather than in his own hands. This can explain why SOBs are so passive in solving the bad debt problem of SOEs.

The fourth reason is that the bankruptcy procedure is dominated by local governments (Zhang, Chunlin, 1988). In China, the SOBs are owned by the central government, while most of SOEs are owned by the local governments. With decentralization, local governments have obtained considerable autonomy and self-interests. They have every incentive to make use of bank passivity to write off debts of their controlled firms, even if these debts are recoverable. Although the Bankruptcy Law requires that reorganization/liquidation schemes must be discussed and approved by creditors' meeting with a simple majority of creditors and an amount of unsecured debt claim, in practice, local judges and bank branch managers can hardly go against the local government's decisions, because their careers and welfare are virtually determined by the local government. It is very hard and costly for the central authorities and the bank's headquarters to verify the true financial state of a firm. Even worse is that some central government agencies (such as the State Economic and Trade Commission and the State Commission for Restructuring the Economic System) have biases towards debtors against creditors because their delegated task is to "invigorate SOEs" rather than "take care of SOBs".<sup>51</sup> There are many other plausible reasons, such as the government's concern of potential social unrest were bankrupt firms to release too many redundant workers, for why debts have failed to play a positive role in disciplining management. However,

<sup>49</sup> Liu (1996) calls it "pseudo-debt".

<sup>50</sup> A similar problem is also found in other reforming socialist countries. See Mitchell (1993).

<sup>51</sup> This is a typical multi-principal problem in public enterprises. See Dixit (1996).

from the above analysis, we see that the fundamental reason is that both enterprises and banks are owned by the state and controlled by bureaucrats rather than real capitalists. For debts to play a role, ownership of the debtor must be differentiated from ownership of the creditor, the debtor must hold responsibility for its performance, and the creditor must have incentives to enforce the debt contract. These requirements can only be achieved when both the firm and the bank are privatized.

### 3. Conclusion: Privatization Is the Only Way Out

In this paper, I have argued that Chinese state enterprise reform has been relatively successful in solving the short-term managerial incentive problem through both its formal, explicit incentive system and its informal, implicit incentive system. However, it has failed to solve the long-term managerial incentive problem and the management selection problem. An incumbent manager may have incentives to make short term profits, but at present there is no mechanism to ensure that only qualified people can be selected for management. The fundamental reason is that managers of SOEs are still selected by bureaucrats rather than capitalists. Since the bureaucrats have the authority to select managers but do not need bear the consequences for their selection, they do not have proper incentives to find and appoint high ability people. Since good performance does not guarantee that the incumbent manager will stay long, the manager does not have long-term incentive. To ensure that only high ability people will be professional managers, authority of selecting management should transferred from bureaucrats to capitalists. This calls for privatization of the state enterprises. Fortunately, China is well on the way in this regard. Although Chinese economic reform began with no intention to privatize, in the past two decades, and particularly since the early 1990s, both explicit and implicit privatization have accelerated in China. In 1978, at the beginning of the reform, 78% of total industrial output came from SOEs. By 1995, the SOEs' share had shrunk to only one-third (China Statistical Yearbook 1996: 403). A recent survey estimates that more than 70% of small SOEs have been fully or partially privatized in Shangdong and a few other provinces (China Reform Foundation 1997:35).<sup>52</sup> The privatization process has been further speeded up after the Chinese Communist Party's 15th Congress. Today many large- and middle-sized SOEs selected by local governments are on the list for sale.

Although I have argued that the state shareholding system cannot solve the management selection problem, I do have recognized that corporatization of SOEs combined with going public in stock exchanges can serve as a first step of privatization, if it is followed by properly transferring

state shares into private hands.<sup>53</sup> Interestingly, the observation suggests that the major players behind the ongoing privatization process are local governments at various levels. Although not all local governments are undertaking explicit, whole-sale privatization program, almost all local governments are considering privatization of their enterprises in one way or another. The question is: What motivates local governments to privatize the enterprises under their control? Li, Li and Zhang (1998) argue that the ongoing privatization in China is a consequence of the cross-regional competition which has followed the decentralization policy introduced at the early stage of reform. Their argument is as follows. When cross-regional competition is sufficiently intense in the product market, each region has to cut production costs significantly in order to maintain a minimum market share for survival. Given that the efforts of managers are hidden, in order to induce managers to reduce enough cost, local governments may have to grant total or partial residual shares to the managers. In general, more intense product competition triggers a higher degree of privatization. It is in the interest of local bureaucrats to give up more residual shares of profits to managers since the induced "incentive effect" more likely dominates the "distribution effect" as competition intensifies.<sup>54</sup>

The debt crisis of SOEs can also provide a force for privatization. Given that most SOEs cannot continue their operation with the existing debt burden, new equity funds have to be injected. However, the state has no fund for injection. The only way to solve the over-indebted problem is to introduce new, non-state shareholders, that is, privatization.

The observation also suggest that privatization of the state enterprises has been and will continue to be a process of "capitalistization" of (some) incumbent bureaucrats and managers (and even some workers). As the reform proceeds, incumbent bureaucrats find it more and more difficult to capture rents in their current positions, because of the disappearance of monopolistic profits and managerial discretion. Experience teaches them that they can do much better by directly doing business with their remaining political capital of "connection" (before it fully depreciates). They have to make up their minds to "xia

<sup>52</sup> Note that these statistics only account for explicit, not implicit, privatization.

<sup>53</sup> This can be explained as follows. Suppose that you have a horse and are not happy with it. One day you see a zebra and fall love with it. You have an intention to exchange the horse for the zebra. However, other members of your family may not be happy with that. One way you can do is that you first go out to get some paint, and then brush stripes on the back of the horse. If the other members question why you got a zebra, you can argue by pointing out that it is not a zebra, but the horse brushed with stripes. Thus you can eliminate their concern. After a period, you may sell the horse and get back a zebra without anyone even noticing.

<sup>54</sup> Li, Li and Zhang (1998) submit their theory to a vigorous empirical test using China's industrial census data, which covers all two thousand counties and more than 400,000 firms in China from 1993 to 1995. The test strongly supports their postulation that cross-region competition is the driving force behind China's transition from public ownership to private ownership.

hai" (go into business). By doing so, they lose little because the rents they used to enjoy can be embedded into profits which may legally accrue to them in various forms. They have no risk to bear because start-up capital comes from the state (initially the firm is "owned" by the state). Before they leave government office, they will grant full autonomy to the firms with which they will work. They will appoint themselves as chairmen of the board, directors, or executives. Once they pocket some profits, they will buy into the firms. They can do this quietly because once the firms are corporatized, they can easily be sold piecemeal instead of as a whole. This process may be further speeded up by the ongoing government restructuring launched by the new prime minister Zhu Ronji. In addition, the central government may have to sell its stocks because of its budget deficit. The state-owned enterprises gradually evolve into private joint-stock companies. In this stage, it is possible for the government to become a bond-holder who can be protected by private shareholders. Once incumbent bureaucrats become capitalists, they will have incentives to select high ability people for management; they themselves will voluntarily step down if unqualified. The separation of government from enterprises will be achieved accordingly. To conclude, it should be pointed out that although privatization of SOEs is very encouraging and promising, privatization of the state banks is yet to come. There may be good reasons for delaying the privatization of state banks. However, unless banks are privatized, they cannot be expected to play a constructive role in corporate governance of enterprises. This is because only private banks can have adequate incentives to select good managers and good projects for financing, and to enforce debts contracts through the bankruptcy mechanism. As long as banks are owned by the state and run by bureaucrats, and thus the state remains the ultimate rescuer of losing concerns, enterprises, even privately-owned, cannot be financially well-disciplined by the banks, and the fundamental problems of moral hazard and adverse selection cannot be solved as well as in a capitalist firm. This is the lesson China should learn not only from itself but also from Korea and other countries.<sup>55</sup>

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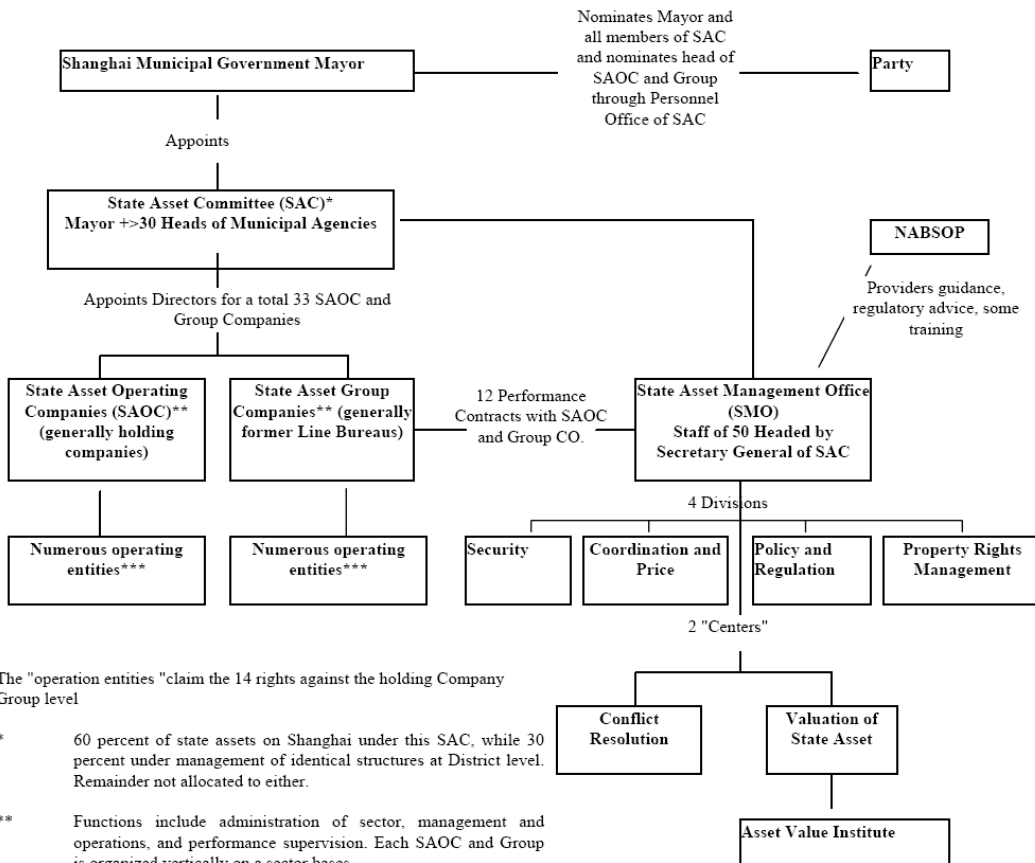
<sup>55</sup> Recently Xiao Geng (1998) proposed that, as a first step, China should separate the bank's deposit business from its lending business by allowing foreign banks to make direct loans to Chinese enterprises with inter-banks' financing from their Chinese counterparts who take deposit directly from households. This sounds like a good idea. But it still faces the potential problem of possible collusion between foreign private banks and Chinese state banks.

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## Appendices



The "operation entities" claim the 14 rights against the holding Company Group level

\* 60 percent of state assets on Shanghai under this SAC, while 30 percent under management of identical structures at District level. Remainder not allocated to either.

\*\* Functions include administration of sector, management and operations, and performance supervision. Each SAOC and Group is organized vertically on a sector bases.

\*\*\* Entities at the operating level total more that 15,000.

Source: World Bank (1997).

Figure 2. Shanghai State Asset Management System

SECTION 4  
PRACTITIONER'S  
CORNER



DOES THE STOCK MARKET PUNISH CORPORATE MALFEASANCE?  
A CASE STUDY OF CITIGROUP

*Bruce Mizrach\*, Susan Zhang Weerts*

**Abstract**

This paper examines how well the market anticipates regulatory sanction. We look at key dates of SEC, NASD, FTC, Congressional and foreign investigations and their subsequent resolution. Our event study confirms that the settlements provide little new information to the market. In six major case groupings, we find highly accurate predictions from market capitalization changes of settlements and associated private litigation.

**Keywords:** SEC; subpoena; probe; settlement; event study

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**1. Introduction**

There has been a growing interest in the question of corporate governance. Corporate frauds at Enron and Worldcom, trading abuses in the mutual fund industry, and conflicts of interest between analysts and investment bankers have fueled interest in civil and criminal remedies to better protect the interests of investors.

This paper is a case study of the actions of a major participant in each of the three areas mentioned: Citigroup. Citigroup is a global financial colossus with a December 2005 market capitalization of almost \$250 billion, 2004 earnings of almost \$17 billion, 287, 000 employees, and almost \$1.5 trillion dollars in assets (see endnote 1). Citi's sheer size, business ties to Enron and Worldcom, major presence in the mutual fund business through Salomon Smith Barney, and \$21.7 billion dollars in global investment banking revenues (see endnote 2) make it a prime candidate for our study. Enforcement actions have had a significant effect on the bottom line though. In 2004 alone, Citigroup paid \$4.95 billion to settle litigation issues.

This nearly equaled the \$5.39 billion profit earned by the investment banking division.

This paper focuses only on cases in which the government or regulatory bodies played a leading role. We group Citigroup's corporate malfeasance during the 2001-2004 into six categories: (A) Global analyst settlement-Worldcom; (B) Enron-Dynegy; (C) FTC consumer lending; (D) Mutual fund trading abuses; (E) Asset management; (F) European bond trading. These cases are either fraud related, as in the research analyst case, or product liability related, as in Citigroup's role in masking accounting fraud at Enron. We provide further detail in Section 3 about the news flow and settlement of the cases. There were still 5 unsettled cases as of December 2005.

This paper seeks to determine whether and when government oversight effects the real bottom line: the company's stock price. Through this case study, we hope to determine if the stock price reacts when cases are announced or when they are settled. If the former, we also seek to answer the question of whether the market correctly anticipated the scale and scope of fines and civil penalties paid by the company.

## 2. Related Literature

The literature has typically found that the company stock reacts negatively to the announcement of private litigation. Prince and Rubin (2002) found that in the automobile and pharmaceutical industries, the firm suffered significant negative returns surrounding the announcement of lawsuits. Ferris and Pritchard (2001) found negative stock price reactions following the announcement of fraud litigations. Griffin, Grunfest and Perino (2003) also found that the stock reacted negatively to the notification of the security fraud litigation, with effects that persist for several weeks.

The date of settlement seems to provide little news to the market. Ferris and Pritchard (2001) found no statistically significant impact on stock returns once cases are settled. It is worth noting that none of the cases we examine went to trial. This seems consistent with Karpoff and Lott (1999) who note that pre-trial settlements are generally smaller than the damages awards by a jury.

Prince and Rubin also looked at the question of how well the stock market predicted the costs of litigation. They found that the losses on the firm value were approximately equal to the upper bound of the direct losses caused by the defective products.

## 3. Identifying News Events

We researched Citigroup's litigation troubles using Lexis-Nexis in the "Business News" category. Our sources were under the heading "Business and Finance. Our keywords were, under "headline, lead paragraph," "Citigroup" and either "probe" or "subpoena." Our focus period for possible regulatory action was from January 2001 to December 2004 with settlement all the way to December 2005.

There were 19 matches to these keywords in 2001, 409 matches in 2002, and 133 matches in 2003 and 2004. Many of these were multiple reports of the same event from different sources. We were able to identify 79 events in the four year period.

**Table 1.** List of Citigroup events

Date	News	Excess Ret.	ΔMkt. Cap	Agent	Group
2-Mar-01	Senate probes money laundering	-0.84%	-2,054.11	Congress	NS
6-Mar-01	FTC sues First Associates	-0.36%	-889.70	FTC	C
11-Apr-02	Salomon subpoenaed by NY state in broker disclosure probe	-1.71%	-4,127.21	Spitzer	A
22-Apr-02	SEC Enron probe	-0.85%	-1,983.94	SEC	B
25-Apr-02	Spitzer on Salomon	-1.05%	-2,392.52	Spitzer	A
26-Apr-02	SEC probe into Citigroup on analysts	-1.15%	-2,546.95	SEC	A
31-May-02	SEC subpoenas Citigroup on Dynegy	-0.58%	-1,289.34	SEC	B
3-Jul-02	Manhattan District Attorney targets Citigroup on Enron	-1.61%	-3,076.28	Manhattan DA	B
22-Jul-02	NASD on Citigroup's Winstar recommendations	-7.79%	-12,843.92	NASD	A
23-Jul-02	Congress on Enron's Citigroup involvement	-12.77%	-17,750.30	Congress	B
13-Aug-02	Congress serves subpoena on Citigroup	-0.85%	-1,453.03	Congress	A
23-Aug-02	Spitzer on ATT recommendation	-1.20%	-2,090.88	Spitzer	A
30-Aug-02	Citigroup faces 2nd subpoena in IPO probe	0.02%	28.28	Congress	A
10-Sep-02	SEC's Wells notices on Enron	-1.29%	-2,011.79	SEC	B
13-Nov-02	NY probe unveils new Grubman e-mails	-3.79%	-6,714.77	Spitzer	A
9-Dec-02	Levin claims Citigroup helped Enron 'deceive' investors	-1.59%	-2,901.63	Congress	B
25-Nov-03	Federal prosecutors investigating Citigroup's asset management	0.02%	50.54	SEC	E
13-Jan-04	Parmalat probe	-0.04%	-108.65	Italy	NS
1-Mar-04	SEC subpoenaed Solomon mutual fund	-0.63%	-1,630.54	SEC	D
6-May-04	SEC probes Citigroup's Argentina accounting	-1.47%	-3,592.13	SEC	NS
20-Jul-04	Citigroup faced SEC probe in closed end fund/transfer Agency	-0.61%	-1,390.11	SEC	D
18-Aug-04	FSA probes Citigroup 'unusual' bond activity:	-0.22%	-527.63	U.K.	F
16-Sep-04	Citigroup faces SEC bond probe	0.01%	30.64	SEC	NS
19-Oct-04	NYAG Spitzer's widening probe into the insurance industry	-0.56%	-1,261.89	Spitzer	NS
<b>Averages</b>		<b>-1.70%</b>	<b>-3,021.99</b>		

We filtered these results further to isolate the first mention of a government action and dropped cases against individuals rather than the company. There are 24 events that met our criteria after this final filtering which we grouped into 6 categories: (A)-(F). Our complete list is in Table 1.

### 3.1 Global research analyst case

On Dec. 10, 2001, New York State Attorney General (NYAG) Eliot Spitzer started an investigation into investment banking recommendations at Merrill Lynch. On April 11, 2002, Spitzer expanded his investigations into 6 more investment banks, including Citigroup. On April 25, 2002, Spitzer subpoenaed

Citigroup's investment arm Salomon for its analyst Jack Grubman's research reports on Worldcom and other telecommunications companies. On April 26, 2002, the Securities and Exchange Commission (SEC) joined Spitzer's investigations. On July 22, 2002, the National Association of Security Dealers (NASD) entered the fray, citing Salomon's research on Winstar.

The Congress served a subpoena on Citigroup on August 13, 2002 and issued additional subpoenas on August 30, 2002. On August 23, 2002, Spitzer highlighted the now infamous case (see endnote 3) of ATT and turned the spotlight on CEO Sandy Weill. On November 13, 2002, Spitzer found an e-mail containing the smoking gun.



The NASD settled the Winstar case first on September 24, 2002 with a civil fine of \$5 million. The SEC, NASD, New York Stock Exchange (NYSE) and NYAG Spitzer reached an official settlement

with 10 firms on April 28, 2003 of \$1.4 billion. Citigroup received the largest fine, \$400 million for fraudulent research reports and preferential grants (see endnote 4) of initial public offerings (IPO). The settlement called for more physical separation between research and investment banking, restitution to stockholders, and funding for independent research and investor education. Jack Grubman, Salomon's star telecommunications analyst, was also punished individually as part of the settlement, but we do not include his personal fine of \$15 million along with Citigroup's. The far bigger cost to Citigroup came from private lawsuits involving the Worldcom case. On May 10, 2004, Citigroup agreed to pay Worldcom stock and bond holders \$2.65 billion.

### 3.2 Enron-Dynergy

Although Enron filed for Chapter 11 bankruptcy protection on Dec. 2, 2001, the SEC did not extend its investigation to Citigroup until April 22, 2002. It then issued a subpoena against Citigroup on May 31, 2002 for evidence relating to Dynergy, a rival and later suitor of Enron. On July 23, 2002, Citigroup stock plummeted -16% when it was forced to defend its investment banking dealings with Enron during a Senate hearing.

On Sept. 10, 2002, the SEC sent a Wells notice to Citigroup, to inform them of possible civil actions relating to Enron. When Michigan Senator Carl Levin said on December 9, 2002 that Citigroup helped "deceive" Enron investors, Citigroup stock lost another -3.75%. On July 28, 2003, the SEC settled an enforcement proceeding with Citigroup, Inc. for \$120 million, \$101 million of which was related to Enron, and \$19 million for Dynergy. Although the actual transactions themselves were complicated, fundamentally Citigroup was charged with helping Enron: "(1) inflate reported cash flow from operating activities; (2) underreport cash flow from financing activities; and (3) underreport debt." Subsequent private litigation ultimately cost Citigroup much more. On June 10, 2005, Citi settled a class action lawsuit for their role in the Enron case for \$2 billion.

### 3.3 Smaller cases

On March 7, 2001, the Federal Trade Commission sued Citigroup division Associates First Capital for predatory lending on loans. The case was settled on September 20, 2002 with Citi paying a \$215 million fine. Citigroup also was investigated for its role in mutual fund trading abuses. On March 1, 2004, their Salomon Smith Barney unit was subpoenaed by the SEC, and a Wells notice advisory was issued on July 20, 2004. The firm settled the case on May 31, 2005 agreeing to pay a \$201 million fine.

Citigroup's asset management arm came under scrutiny on November 25, 2003 by the U.S. attorney in New York. This case was settled on March 23, 2005 with Citi paying a fine of \$27.5 million.

Our last case is the probe by London's Financial Services Authority (FSA). The FSA announced a pro forma inquiry into Citigroup's "unusual trading activity" on August 18, 2004. The case was settled on June 28, 2005 with Citigroup being assessed a 13.96 million pound (\$25.44 million) fine.

### 3.4 Open cases

As of late December 2005, there were four open investigations against Citigroup, all initiated in 2004. On January 13, 2004, a probe was begun by Italian authorities into Citigroup's role in the Parmalat case. On May 6, 2004, the SEC began an investigation into Citigroup's activities in Argentina. Citigroup and several other large banks became the subject of an SEC investigation on September 16, 2004 into bond trading irregularities in an offering by Eaton Vance. Finally, Citigroup is not yet clear of Eliot Spitzer. He launched a probe into insurance business practices at Travelers on October 19, 2004. We look at the cases next from the perspective of the agency conducting the investigation.

## 4. Enforcement Agents

The lead actor in a U.S. enforcement action is typically the Securities and Exchange Commission (SEC). This period was unusual because of the lead role played by state authorities, in this case the New York State Attorney General Eliot Spitzer. The SEC does not undertake criminal actions, leaving this to the Justice Department and on occasion to state prosecutors. The SEC imposes civil penalties both as a deterrent, and to make restitution to victims. The NYSE and NASD are self-regulatory organizations (SROs) that have the ability to impose fines and conduct remedies.

### 4.1 SEC

The SEC undertakes many informal and routine inquiries which result in company specific requests for information. Since 1990, it has not needed court permission (see endnote 5) to pursue a probe. It may also file a Wells Notice (see endnote 6) to formally indicate that an enforcement action will follow. The National Association of Securities Dealers (NASD) also uses a similar procedure.

The receipt of a Wells Notice typically does not come as a surprise to the prospective respondent, as there is almost always an investigation and discussions with the SEC or NASD staff prior to a filing. We have record of only two Wells notices in our event groupings, September 10, 2002 in the Enron case, and the mutual fund case of July 20, 2004. The SEC is the

lead authority in 9 out of 24 events. The NASD is responsible for one.

#### 4.2 New York State authorities

During our sample period, there was an unexpected player in the investigation of Citigroup's illicit activities. New York Attorney General Eliot Spitzer made aggressive use of state fraud statutes to launch independent investigations into analysts, mutual fund fraud, and then the insurance business.

Spitzer is responsible for 5 of our news events. The Manhattan district attorney's office pursued a criminal case in the Enron investigation.

#### 4.3 Other government investigations

The Enron case was so high profile that the Senate took the unusual step of launching an important

investigation as well. On July 23, 2002, they began their probe. On August 13, 2002, they issued a subpoena to Citigroup and a second one at the end of the month. In total, the Congress is the actor in 5 events. The FTC also became involved in Citigroup's consumer lending practices. Foreign regulators have played the lead role in the U.K. bond trading scandal and the Parmalat investigation. We now turn to the question of when and if these announcements impacted Citigroup's stock price.

#### 5. The Model

We look at the four year period from 2001-2004 and test the hypothesis that announcements and/or settlements effect the stock price. Prince and Rubin (2002) and Garber and Adams (1998) argue that investors may have already incorporated expected losses into the stock prices before the settlements, providing little "element of surprise."

A second reason for there to be little impact at settlement, Ferris and Pritchard (2001) note, is that companies anticipate the costs of litigation by setting up a litigation reserve. On December 23, 2002, Citigroup announced an after tax charge of about \$1.3 billion or 25 cents per share (diluted) to establish a litigation reserve for Enron. On May 10, 2004, Citigroup also announced that it put aside additional \$3.3 billion after tax into the litigation reserves to cover Enron and Worldcom lawsuits.

Alternatively, punitive damages could result in a negative stock return on the settlement day. Karpoff and Lott (1999) found that a current punitive damage award could induce the market to revise up their expected losses for ongoing litigation.

An argument for a positive effect could be due to the litigation reserve. A smaller than expected award could raise earnings by releasing the reserve into future earnings streams. We now test these alternative explanations in a simple event study model.  $r_{i,t}$  is the return for Citigroup stock on the day  $t$ ,  $rm_t$  is the market rate of return and,  $DNews$  and  $DSettle$  are

dummy variables for the news release, and the settlement date,

$$r_{i,t} - rm_t = a_0 + a_1 DNews_{i,t} + a_2 DSettle_{i,t} + \epsilon_{i,t} \quad (1)$$

Our data on returns is from the CRSP database. The market return is the value-weighted return for the entire market. Table 1 reports the excess returns on the 24 event dates. Our estimates confirmed a significantly negative reaction for our key event days on the abnormal stock returns.  $t$ -ratios are in parentheses.

$$r_{i,t} - rm_t = 0.0631 (1.50) - 1.7675 (6.53) \times DNews_{i,t} - 0.2113 (0.32) \times DSettle_{i,t} + \epsilon_{i,t} \quad (2)$$

These estimates indicate that Citigroup had an average -1.70% negative excess return on the days of our 24 announcements. We also found a smaller, negative, but statistically insignificant stock reaction on the event days of the settlements. It appears that Citigroup was fairly accurate in establishing its' litigation reserve. We now turn to see if the market was equally accurate.

#### 6. Efficiency of Market Discipline

Economists have long argued that the market imposes the ultimate discipline on corporate malfeasance.

We ask in this section whether or not the market rationally anticipates the outcome of the six major event groups. A complete list of the market cap changes in the six case groupings is in Table 2 along with settlement dates and amounts.

We accumulate the change in market cap following each news event, and use it to explain the size of the eventual settlement,

$$\$Settle_j = b_0 + b_1 \sum_{i=1}^{n_j} DNews_{i,t} \times \Delta MktCap_{j,t} + \epsilon_{j,t}, \quad j = A, \dots, F \quad (3)$$

$n_j$  is the number of information events about case  $j$ . In our six major cases groupings, we estimate

$$\$Settle_j = \frac{29.7775}{(0.76)} - 0.0834 \times \sum_{i=1}^{n_j} \Delta MktCap_{j,t} + \epsilon_{j,t} \quad (4)$$

This model fits the data reasonably well with an  $\bar{R}^2$  of 34% although the market cap change is only marginally significant. This equation says the market punishes the company almost \$160.41 for every dollar that the government recovers.

We tried to see if we could improve the fit of this equation by including the private settlements in the Worldcom and Enron cases,

$$\$Settle_j = \frac{97.5573}{(1.64)} - 0.0062 \times \sum_{i=1}^{n_j} \Delta MktCap_{j,t} + \epsilon_{j,t} \quad (5)$$

The fit is now remarkably good with an  $\bar{R}^2$  of 99%, and the market cap is overwhelmingly significant.

(5) implies the market predicted a \$3.073 billion settlement for Worldcom (actual \$3.055 billion) and \$2.085 billion for Enron (actual \$2.120 billion).

**Table 2.** Litigation Settlements Against Citigroup 2001-2004

Case Group	Initial Action	Settlement	Amounts (\$mn)		
			Govt.	Private	ΔMkt.Cap
Global analyst settlement-Worldcom	11-Apr-02	23-Apr-03	405	2,650	-36,506.63
Enron-Dynegy	20-Feb-02	28-Jul-03	120	2,000	-24,647.66
FTC consumer lending	07-Mar-01	20-Sep-02	215		-889.70
Mutual fund trading abuses	03-Mar-04	31-May-05	201		-3,020.65
Asset management	25-Nov-03	23-Mar-05	27.5		50.54
European bond trading	18-Aug-04	28-Jun-05	25.44		-527.63
Italian's Parmalat probe	13-Jan-04	Open			
SEC probes Citigroup in Argentina	06-May-04	Open			
SEC probe into Citigroup's bond trading	16-Sep-04	Open			
NYAG Traveler's probe	19-Oct-04	Open			

Government penalty is the civil or criminal penalty imposed by the government or regulatory authority. Private litigation refers to settled class actions as of December 2005. The change in market cap is based on the percentage excess return. All are in millions of U.S. dollars.

Each dollar change in market cap in (5) now predicts \$11.99 in government and private litigation losses. This is close to Citigroup's December 2005 trailing price earnings ratio of 11.14.

## 7. Conclusion

In ongoing research, we are examining whether these results for Citigroup will generalize to the rest of the financial sector, and to other industries as well. Bajaj, Mazumdar and Sarin (2003) showed that the losses of firm value during the litigation period were much larger than the settlement amount. Prince and Rubin (2002) noted that it is common for negative stock returns to exceed expected damage payments. They argue that firms suffer reputation costs. They conjecture that private litigation is less harmful to a firm's reputation than government sanctions.

In the language of finance, this suggests that firms that are continually cited by the SEC and other enforcement agents may have lower price earnings ratios. We leave this interesting question to future research.

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## Endnotes

1. All the numbers, except for the market cap are from the 2004 Citigroup Annual Report: [http://www.citigroup.com/citigroup/fin/data/ar04lc\\_en.pdf](http://www.citigroup.com/citigroup/fin/data/ar04lc_en.pdf). Market capitalization was computed on December 7, 2005 based on a price of \$48.60 per share.

2. This is from the May 12, 2005 presentation of the Citigroup Investment Banking Division: <http://www.citigroup.com/citigroup/fin/data/p050526.pdf>

3. Grubman reportedly changed his ATT recommendation in return for Weill's help in getting his children admitted to an exclusive Manhattan nursery school.

4. This practice is known as spinning.

5. The Securities Enforcement and Penny Stock Reform Act of 1990 gave them this flexibility.

6. <http://www.seclaw.com/docs/wellsnotice.htm>

"Receiving a Wells Notice signifies that you are the subject of an investigation and that enforcement proceedings are going to be commenced against you. There is no legal requirement for a regulator to provide a Wells Notice to you, however it is the practice of the SEC and the NASD to provide such notice."

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